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ABSTRACT

This report is the final evaluation of the State Dissemination Grants Program (SDGP), a major initiative within the mission of the National Institute of Education (NIE) to assist state education agencies in implementing, strengthening, and institutionalizing dissemination services that improve educational practice and equity. The multi-year evaluation was undertaken to determine whether dissemination capacity was being built and to identify factors affecting the building of capacity. Individual chapters describe the history and development of the SDGP; outline the study approach; provide cross-case analyses of five capacity building states; present generic descriptions of state dissemination systems; and review NIE's management of the program. A summary of findings notes that dissemination capacity was being built, and factors affecting the building of capacity are delineated as state factors, program design and management factors, and other structural factors. Policy implications and recommendations are also discussed. (15 figures and 10 tables) (NRP)

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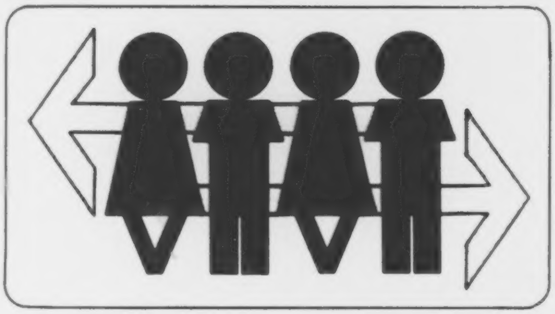
Final Report: Building Capacity for Improvement of Education



THE STATE DISSEMINATION GRANTS PROGRAM

Building Capacity for Improvement of Educational Practice

Prepared for:
Research and Educational Practice Program
Dissemination and Improvement of Practice
National Institute of Education
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BUILDING CAPACITY FOR IMPROVEMENT OF EDUCATIONAL PRACTICE: AN EVALUATION OF NIE'S STATE DISSEMINATION GRANTS PROGRAM

Prepared for:	Prepared by:
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April 1981

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BUILDING CAPACITY FOR IMPROVEMENT OF EDUCATIONAL PRACTICE: AN EVALUATION OF NIE'S STATE DISSEMINATION GRANTS PROGRAM

VOLUME I

FINAL REPORT

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PREFACE

The State Dissemination Grants Program is a major initiative within the mission of the National Institute of Education (NIE) "to promote educational equity and improve the quality of educational practice." NIE expects the State Dissemination Grants Program (SDGP) will aid the development of a nationwide capability for educational improvement by assisting a significant group of actors, state education agencies (SEAs), to implement, strengthen, and institutionalize dissemination services that improve educational practice and equity.

Under the sponsorship of the NIE's Program on Dissemination and Improvement of Practice, NTS Research Corporation conducted a multi-year study of the State Dissemination Grants Program (NIE Contract No. 400-76-0166, October 1976 - April 1980) to address two major questions:

- Is dissemination capacity being built as a result of this program? If so, how?
- Is the program having an effect? If so, what is the nature of the effect?

The evaluation was in two phases. Phase I of the study, an eleven-month design phase that extended from October 1976 through August 1977, was devoted to describing the program, clarifying and translating the program's goals into measurable variables, and developing a design, appropriate instrumentation, and data collection and analysis procedures for the study. Familiarization visits to 23 projects, refinements in the study design, and approval of a forms clearance package occurred during September 1977 - August 1978. Phase II, the full-scale evaluation, was initiated in September 1978 and concluded in April 1980. Phase II objectives included describing and tracking the process of building dissemination capacity, documenting the impact of the program, sharing the study findings and analyses with NIE and the states to promote program and project improvement, and developing mechanisms for the continual evaluation and measurement of dissemination capacity.

The final report for the NTS study is comprised of four volumes:

- This volume, Volume I: Building Capacity for Improvement of Education: An Evaluation of NIE's State Dissemination Grants Program (April 1981), is the final evaluation report of the State Dissemination Grants Program. Included are descriptions of the program and the evaluation, of qualitative cross-case analyses of five capacity building states, generic descriptions of state dissemination systems, and quantitative analyses which identify factors which facilitate and impede the development and institutionalization of SEA dissemination systems. The analyses reveal that dissemination capacity is being built, participation in the program enhances such growth, and SEA dissemination systems of states participating in the program differ from those of non-participating states. A final chapter discusses the policy implications of these and other findings.

- Volume II: 1979 State Abstracts: State Dissemination Efforts (April 1980), profiles dissemination activities in thirty-eight SEAs as of December 1979. In addition to summaries of capacity building project states, this document describes the status dissemination efforts in states that have not participated in the program.

- Volume III: A Study of Linker Agent Activities and Roles (April 1981) describes how people help others access and use information for school improvement. The study is based on data collected from linkers associated with the program.

- Volume IV: A Study of the Development of Scales Measuring Dissemination Capacity (April 1981) is a technical report which describes how the scales were developed and how they have been used.

Prior to 1980, seven major reports were prepared under Phase II of the NTS study:

- 1978 State Abstracts (March 1979) contains summaries of dissemination activities in twenty-nine SEAs as of November 1978. Included are nine SEAs initially funded in 1975, fourteen additional projects initially funded in 1976, and six SEAs initially funded in 1977. An introductory chapter presents an analysis across the individual projects.

- Building Capacity for Improvement of Education: An Evaluation of NIE's State Dissemination Grants Program, Interim Report, (July 1979) is the interim report on the full-scale evaluation of the State Dissemination Grants Program. Included is an overview of the evaluation, purposes of the study, framework, evaluation questions, data collection methods, analytic techniques, and findings. The process used by SEAs to develop capacity for gaining access to information resources and for linking such resources to the needs of educators are described.

- Intelligence for Dissemination Service Capacity: A Conceptual Framework (March 1979) expands an earlier framework into a heuristic device for studying users of educational dissemination services. This conceptual framework was completed to guide the development and refinement of questions, variables, and instrumentation for users and usages of dissemination services.

- Information About Users and Usages: A Literature Review (March 1979) is a companion document to A Conceptual Framework. The review was prepared as part of the design process used to develop the framework.

- The Client Assessment Package (December 1978) is a set of five machine-readable instruments developed by NTS to record the process of seeking and using information and assistance for educational improvement. Linked by a common identification field, the five forms in the package are the Service Form, Process Form, Linker Form, Immediate Feedback Form, and Client Assessment Form. An accompanying Guide to the Client Assessment Package provides instructions for completing and using the forms.

- Request for OMB Clearance with Supporting Documents for the Evaluation of the State Capacity Building Program in Dissemination (June 1978) is the justification and instrumentation package prepared for and approved by the Office of Management and Budget for use in the evaluation.

- A Framework for the Evaluation of the State Capacity Building Program (May 1978) presents the organizing framework for the evaluation.

During Phase I of the NTS study, five major documents were also produced:

- 1977 State Abstracts (September 1977) contains summaries of twenty-four capacity building projects. Included are the ten states initially funded in 1975 and the fourteen additional projects funded in 1976. The abstracts document dissemination activities in the SEAs as of May 1977.

- State Reports (July 1977) contains extensive documentation on nine of the first states funded through the capacity building component of the State Dissemination Grants Program. The mini-case studies examine dissemination activities in nine SEAs as of May 1977.

- A Compendium of Evaluation and Documentation Forms Currently in Use by State Capacity Building Projects (July 1977) is a compilation of selected instrumentation used by the capacity building projects. An accompanying narrative describes the included materials.

- Final Design Report for the Evaluation of the State Capacity Building Grants Program (July 1977) is a two-volume report. Volume I contains the proposed designs for the full-scale evaluation. Volume II contains proposed instrumentation.

- Building Capacity in Dissemination: Literature Review (March 1977) was used to inform the design process. The Literature Review consists of two separate but related products. The first summarizes dissemination literature, using an organizing framework which parallels that followed in NTS design work. The second product consists of an extensive bibliography and outline of topics covered in the Review. Each entry in the outline is followed by a list of relevant citations.

By describing and evaluating the process of developing dissemination capacity in selected SEAs and by assessing the program's effects, the NTS study has provided basic information for the improvement of state dissemination efforts, developed mechanisms for the continual evaluation and measurement of dissemination capacity, and by so doing, attempted to enhance the development of a nationwide dissemination system or configuration for improving educational practice and enhancing educational equity.

ACKNOWLEDGMENTS

This volume is the Final Report of the study of the State Capacity Building Program, initiated in 1976 and supported by the National Institute of Education. Many individuals have contributed to this effort.

We wish to thank the Chief State School Officers for their cooperation in supporting our study and particularly, Paul Sandifer, who served as a liaison with the Committee on Evaluation and Information Systems for the Council of Chief State School Officers.

We would also like to thank the directors, staffs and monitors of the capacity building projects included in this study. Without their open and enthusiastic cooperation, this report would not have been written.

We offer special thanks to Robert J. Goettel of NTS Research Corporation who conducted site visits with us and who wrote a portion of Chapter 4. In addition, he performed the critical function of constructively challenging our approach in the final phases of this study and he helped us to consider different ways of looking at the states and their capacity building projects.

For their helpful suggestions and comments, we would like to thank NIE Research and Educational Practice Program personnel Michael B. Kane, John Egermeier, Ward Mason, and Naida Bagenstos; NTS colleagues A. Jackson Stenner, Sol H. Pelavin, and Becky Hayward; and consultants Virginia Cutter, Charles Mojkowski, Carnot Nelson, Brenda Turnbull, and Robert Yin. None of them bear responsibility, however, for any shortcomings of the report.

Other NTS staff have also contributed to this report. Norm Frieberg assisted with the computer analyses and the massive task of data reduction. Our project secretary, Celeste Burnett, was a major contributor to the typing and producing of the report. She was ably assisted by Judy Suitt, Pauline Matson, Cathy Revill, and Linda Bailey. Skip Anderson designed the report's graphics.

To all of those named above, as well as those we could not name or failed to mention, we offer a most sincere "thank you."

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1

INTRODUCTION AND SUMMARY

Introduction

As a nation and as a people, we have adopted as a major assumption guiding the conduct of our lives, the belief that decisions and actions which are based rationally upon information are better than those not based upon such information. But getting the information we need, the "best" and most up-to-date information, is not always an easily accomplished task. How do we, as individuals, find out about all that has been written concerning a problem? How many of us have the time, resources, or motivation to take the necessary effort to track down all of the sources? And how many of us are near enough to an institution's library which can provide us with a wide variety of needed resources? What happens, for example, to the teacher in isolated rural areas removed from extensive library holdings? What happens to the principal in an inner city school with limited time and resources and who desperately needs new practices and programs with which to provide a better education to the pupils in his school? Or what happens to parent groups or members of a Board of Education who are not professionally trained educators but who have responsibilities to the pupils in their schools to improve the quality of education? An actual example of how information may be obtained and used to improve educational practice provides an answer to some of these questions:

> In 1977, a small school district (total school population of 138 pupils) decided that the math and reading programs used to educate its pupils were inadequate. The district is geographically isolated. It is not served by public transportation and is more than an hour away from a major shopping community and two hours away from the nearest state university. Given its isolation, limited finances and the lack of specialized personnel, how then could the educators and parents of this community design a new program to overcome these deficits? The superintendent had attended an awareness session in which a service

> provided by the state education agency (SEA) was described. This service provided educators with a variety of information resources, including information about new and promising educational practices and programs, and even assistance in using the information to implement new programs. The superintendent contacted the unit in the SEA which provided these services and, in turn, the regional representative of this agency met with the superintendent, parents, and teachers to discuss and define the problem. Having defined the needs as expressed by the community, the representative provided them with descriptions of a variety of programs. These programs were assessed by the community and a math program was selected for further examination. The agency provided support to send the superintendent, a member of the Board of Education and teachers to examine the program and to be trained in the methods of the new programs. A similar procedure was followed in selecting a reading program, the major difference being the agency brought a representative of the selected reading program into the community to provide training for the teachers. New math and reading programs were implemented and, within a year, a marked improvement in student performance was noted.[1.1]

There are many other examples of similar experiences involving SEAs, and educators in school districts which range across the entire spectrum of characteristics, large and small, rural and urban, isolated and in the heart of a high concentration of cultural and intellectual resources. These requests for help are for many kinds of information:

> New Federal and state initiatives have stressed the importance of fairness in the education of male and female pupils. But finding materials which would help school systems and teachers to meet these mandates is often difficult. In many states, educators have turned to a unit in the SEA for assistance. Nonsexist curriculum materials have been provided to teachers who have been searching for a means to overcome the subtle forms of discrimination between boys and girls too often found in existing programs.
>
> School board members in a large school district are kept up-to-date on current educational trends and issues. On a regular basis the school district requests and receives information from an SEA unit on topics related to school board agenda items, such as discipline policies, sex education, and middle schools. The information obtained is summarized for the school board before every meeting and provides the school board members with the necessary background information for informed decision making.

> A high school principal was concerned about student reading scores and a high rate of failures. Information and assistance from a regional representative of the SEA resulted in the development of a volunteer student tutoring program. Student tutors now receive academic credit for their participation and the failure rate of students in the high school has been reduced by a third. Other districts, learning about the success of this program through awareness materials prepared by an SEA unit, have requested assistance from this unit and from the high school principal in designing and implementing similar programs in their own districts.[1.2]

While called different things by different states, many SEAs have assigned a unit in each agency the primary responsibility for the dissemination of information to the educational community. Dissemination in this context, is defined as "a two-way process for communicating knowledge relevant to educational needs and problems so that educational decision makers and practitioners can rationally consider alternatives to current practice and the results of research and development in improving educational programs."[1.3] Because SEAs vary in their organization and approach to school improvement, and because relationships among SEAs and LEAs are complex, no one model or approach to developing an SEA dissemination unit or system will fit all SEAs. But the functions of such a system can be described in simple terms. The SEA dissemination system should be able to (1) collect and organize the information upon request, (2) get the information to the client, and (3) assist the client in using the information. Such a system, conceptually, could be comprised of three generic components: (1) an information resource base which contains the knowledge or knowledge-based products clients need, (2) linkages to connect the resources with the people who could benefit from them, and (3) a component to coordinate the various activities needed so local educators can use the system for school improvement.

This report describes how SEAs, through assistance provided by the National Institute of Education (NIE), have developed the capacity to operate dissemination systems.

In 1975, the NIE established a program which provides grants to SEAs to help them design, implement and institutionalize SEA dissemination systems. That program, called the State Dissemination Grants Program (SDGP) is part of NIE's approach to meeting its mandate to aid in the dissemination of research and development (R&D) knowledge.

Through the State Dissemination Grants Program, two types of awards are made to SEAs: (1) special purpose grants and (2) capacity building grants. Special purpose grants, which average $37,000 each, support relatively low-cost, short-term SEA improvement efforts related to building a dissemination system. These grants are used to support such SEA activities as initial planning, training of personnel, or the development of specific information resources or linkages.

Capacity building grant awards are of one-year duration and potentially renewable for three-to-five years. Capacity building grants average about $100,000 and support an SEA's activities to design, implement, and institutionalized the capacity "for the dissemination of the results of educational research and of new and improved practices and products in education."[1.4] This portion of the SDGP is referred to as the State Capacity Building Program (SCBP).

Under the sponsorship of the Research and Educational Practice unit of NIE's Program on Dissemination and Improvement of Practice, NTS Research Corporation has conducted a study of the State Capacity Building Program. The basic objectives of the NTS study are:

- To describe the state capacity building projects and the SEA dissemination systems within which those projects are located, taking into consideration the contextual characteristics of states.

- To describe changes in SEA dissemination systems and institutionalization taking into consideration what combination of contextual characteristics and project characteristics affect these changes.
- To review NIE's management of the SCBP and its operational procedures, such as proposal review, project funding policies, and project monitoring, and examine how these relate to operations at the project level.
- To derive policy recommendations which may help improve the SCBP and future dissemination programs.

The objectives to which this study is oriented do not include the assessment of whether the development of dissemination capacity affects the quality of education programs or the increased equity of educational opportunity. Rather, the reader should be aware of the fact that this evaluation is oriented basically to the assessment of the capacity building effort within states; we can not assess the significance of the dissemination system nor its elements upon school change or improvement.

Data Sources and Data Collection

Sources of data for the evaluation included: (1) two waves of data collection from (1978,1979) Cohorts I, II and III capacity building projects; (2) additional data collection from Cohort IV and V projects and from nonprogram states; (3) case studies of five projects; (4) interviews with NIE personnel involved in the design and implementation of the SCBP, and (5) information obtained from a review of existing documentation.

Cohorts I-III States

Data were collected from Cohort I, II, and III states in Fall, 1978 and Fall, 1979. In Fall 1978, questionnaires were sent to Project Directors and interviews were conducted on-site with three respondent groups in each state: Directors of Capacity Building projects; SEA Administrators; and Information Resource base staff. In Fall 1979, the questionnaire was readministered to the Project Directors in Cohorts I-III.

Cohorts IV, V, and Non-SCBP States

In Fall 1979, adapted versions of the questionnaires were used to collect data from states which had been recently funded and from non-SCBP states. Non-SCBP states were sent the data collection instruments in order to provide a point of comparison with the SCBP states. Respondents for the non-SCBP states were the representatives to the NIE-sponsored State Dissemination Leadership Project.

Site Visits

Site visits were conducted in February, 1980 to Illinois and Texas (Cohort I states) and to Kansas, Michigan, and Rhode Island (Cohort II states). In these states, two senior researchers from NTS held interviews with SEA administrators, SCBP project personnel, and representatives of other SEA agencies which are, or could benefit through, the SEA dissemination system.

NIE Program Officers and Project Monitors

Interviews were conducted with NIE program officers (i.e., those involved with overall management of the Program) and project monitors (i.e., those whose SCBP responsibilities involve monitoring one or more SCBP projects) regarding the orientation, influence, and expectations of the Program and their perceptions of the Federal role in the operation of the capacity building projects. Respondents included both current and former NIE staff.

Document Review

In addition to obtaining information from the states and NIE, the NTS study team reviewed a variety of documents. For each capacity building project included in the study, the NTS team conducted a review of all available first-year and continuation proposals and quarterly reports. The NTS study team also reviewed NIE program announcements and available grant negotiation documentation. Finally, the NTS study team collected and utilized statistical data regarding SEA and state contextual characteristics from appropriate sources (e.g., National Center for Educational Statistics).

Summary of Findings

The purpose of this study was not to evaluate the success of specific capacity building projects, but rather to identify factors which facilitate or impede SEA efforts to build and institutionalize state dissemination systems. Our analyses and recommendations are intended to assist Federal and state policy to promote the goals and objectives of this program and of future capacity building efforts.

The study findings are presented as responses to three major research questions:

- Is dissemination capacity being built?
- What are the factors affecting the building of capacity? What helps and hinders achievement of program objectives?
- What program management and program design factors affect the building of capacity?

Is Capacity Being Built?

1. The primary effect sought from the program--increased capacity of SEA's for dissemination--is being achieved.

   - States have substantially increased the breadth and variety of knowledge resource bases that can be accessed through the SEA dissemination unit.
   - States have modified existing structural arrangements to develop the capacity for the delivery of information to clients through "linkers" who function as information brokers.
   - Coordination of the resources for dissemination in SEAs has been improved; however, most of this improvement has occurred between the projects and generic programs such as NDN and Title IV; less coordination has been achieved between the project and content specific programs, such as vocational education and handicapped education.

- Most states in the SCBP evidence movement toward institutionalizing their dissemination capacity, although it is still too soon in that process to determine if the dissemination system will indeed become an accepted part of SEA program services offerings.

2. The process of increasing capacity follows several different patterns depending on state history and context, and reflects the flexibility allowed by the program guidelines.

    - Resource base development has expanded primarily in the areas of promising practices and other state and local information files. It appears that in most states reliance is placed upon validated programs in the school improvement process; less emphasis is placed upon information gained from non-validated, promising practices as a basis for school improvement.

    - Three linkage patterns--which we have characterized as SEA controlled (tightly coupled), SEA coordinated (loosely coupled), and external (uncoupled)--provide one means to reflect state philosophy and consequent structures for school improvement.

    - Building SEA dissemination system capacity seems to have an identifiable sequence of development, but individual state factors, and changes in those factors may override this "developmental" pattern.

Factors Affecting Program Success

Success of SEA efforts to implement and institutionalize dissemination systems appear to be influenced by the following:

1. State Factors

    - Continuity of energetic and entrepreneurial leadership: but once that leadership is gone the process may become endangered.

    - Previous experience with dissemination activities is a helpful but not sufficient factor in institutionalization.

    - Placement in an administrative unit appears to assist in the development of coordination and comprehensiveness of the system. Placement in a service unit appears to assist in the delivery of services to clients and the institutionalization of the system in the SEA.

    - Initial strategies of targeting clients for service and developing products for use by particular clientele enhance the development of coordination and comprehensiveness of the system. But the project needs to move on to serve the general clientele if instituionalization is to be enhanced.

    - The active support of SEA administrators (Chief State School Officer and their associates) is crucial to building capacity and implementing and institutionalizing the dissemination system.

- Stringent state government budgets and inevitable changes in agency leadership affect the dissemination projects in unanticipated, generally negative ways which are largely beyond the control of project staff.

2. Program Design and Management Factors

- Collaborative planning and flexibility of program guidelines permitted states to tailor their dissemination projects to fit their individual contexts. While these approaches have enhanced the in-state capacity for independent solutions to dissemination system development, they may also foster a lack of understanding of the goals and means of a dissemination system.

- Opportunities to communicate with personnel from other states and agencies facilitate project development. Although the program provided mechanisms for such communication and for technical assistance, these provisions appear to be too limited. In other words, the plan was appropriate; its implementation was not adequate to meet the needs of the states.

- Program objectives regarding the role of the dissemination system in relation to a state's other school improvement process are not adequately specified in program guidelines and project proposals. The result is that the potential for facilitating the use of new knowledge and educational practices for school improvement and equal educational opportunity is only partially realized in many SCBP states.

- Program and project goals for increasing equity and for operationalizing those goals are not well developed. There is little evidence of program resources being directed explicitly and in concerted ways for increasing equity in education.

- NIE staff resources assigned to this Program have been too limited to provide the necessary monitoring and technical assistance needed and often requested by the state projects.

3. Other Structural Factors

- The continued fragmentation of the dissemination components of Federal programs impedes the building of generalized and comprehensive dissemination systems within the states. Despite the fragmentation, however, many states have made progress in coordinating dissemination efforts at the state level.

Summary of Recommendations

1. Collaboratively Strengthen Program Conceptualization and Design

The findings of this study have broad implications for future programs, but in the near-term NIE and the states should work together to strengthen the programs in the following ways:

- Provide a clearer conceptualization of, and guidelines for ways states can use dissemination resources to facilitate significant improvements in educational practice and equity--e.g., in connection with other SEA programs or through other linkages with practitioners.

- Clarify the role of state knowledge resource bases and set priorities or guidelines for types of resources that should be further developed--e.g., those that are most used, most useful, most difficult to obtain through other means, or most relevant to equity issues in education.

- Provision is needed for linker training, particularly to enhance skills of individuals who are already located in positions to facilitate school improvement.

- Guidelines should acknowledge the development of organizational capacities and provide assistance for critical functions at each stage. A "step-wise" or "building block" approach is recommended that is keyed to three stages--planning, implementation and institutionalization.

2. Strengthen Program Management and Leadership

- NIE staff resources for this program should be strengthened in order to provide more guidance on critical project issues--e.g., utilization of dissemination to enhance equality of educational opportunity, and trade-offs among alternative ways the states are authorized to use the program resources.

- Ongoing and viable communication mechanisms among the states involved in building dissemination capacity should be created and maintained. These mechanisms could include the regional exchanges who could function as the vehicle through which communication among states within regions is maintained.

3. Improve Federal Level Coordination Mechanisms

- Mechanisms for improving coordination of (or support for the cooperation of) Federally-funded programs should be created at the Federal level.

4. Examine Further the Secondary or "Downstream" Effects of the Program in Terms of Its Effects on Education

- This study shows that capacity is being built, and identifies a number of factors that are enhancing and limiting the capacity building effort. The program should be examined further to determine how the capacity is used and what aspects of dissemination capacity are most critical in achieving improvements in equity and practice in education.

Organization of Report

This volume is the final evaluation report for the NTS study. Chapter I, the Introduction, has presented a brief overview of the SCBP and the NTS study. To develop a perspective from which to view the SCBP, its organization, operations, and accomplishments, Chapter II describes the Capacity Building Program and reviews the major legislative influences and the significant events which have contributed to building of dissemination capacity nationwide. Chapter III describes NTS activities in conducting the evaluation. Chapter IV presents a description of the operationalization of the SCBP in five states and of the factors which appear to facilitate and impede the development of institutionalization of SEA dissemination systems. In Chapter V, the presentation is broadened to describe the SEA dissemination systems in the larger grouping of SCBP states. Chapter V also examines factors which help explain the differences which exist among states in the development of dissemination capacity. Chapter VI discusses the role of the National Institute of Education in the design and implementation of the Program. Chapter VII summarizes the study's findings, discusses their policy implications and presents a set of recommendations to further enhance nationwide dissemination efforts for school improvement.

There are three companion volumes to this report:

- Volume II, 1979 State Abstracts, a document which profiles dissemination activities in thirty-eight SEAs;
- Volume III, Special Study of Linker Activities and Roles:and
- Volume IV, Special Study of the Development of Scales Measuring Dissemination Capacity.

FOOTNOTES

1.1 Kansas Educational Dissemination Diffusion System, "Mini Case Studies of Local School Districts with a Dissemination System," Kansas State Department of Education, July 1978, p. 11.

1.2 *Ibid*., pp. 3-16. Examples were derived from the mini case studies and anecdotes related to field staff during site visits.

1.3 National Institute of Education, *Program Announcement: State Dissemination Grants Program*, FY 75, p. 6.

1.4 *Ibid*., p. 13.

2

HISTORY AND DEVELOPMENT OF THE STATE DISSEMINATION GRANTS PROGRAM

Introduction

The purpose of this chapter is to provide an understanding of the context within which NIE's State Capacity Building Program (SCBP) was designed and implemented. The first section describes the Program. The second section reviews significant efforts to develop dissemination capacity which influenced the design of the Program. Next we describe the planning which took place in preparation for the Program's creation. The fourth section highlights activities since the Program's inception which have contributed to the current status of SCBP. A final section summarizes the chapter's main points.

The Program

Until 1975, most Federal dissemination programs focused on a particular area of education (e.g., vocational education), dealt with a special group of students (e.g., handicapped students) or disseminated a specific type of product (e.g., validated programs). Faced with a particular problem, local school personnel often found it difficult to obtain the information or the assistance they needed because they had to contact many different sources. The major impetus for the creation of another Federal dissemination program, the State Dissemination Grants Program (SDGP), was the assumption that by helping State education agencies (SEAs) improve their abilities to provide dissemination services, local educators would have better access to and use of information. Established by the National Institute of Education (NIE) in

1975, the SDGP assists SEAs in implementing, strengthening, and institutionalizing state-level dissemination systems or capacities. SEA dissemination system or capacity refers to the resources, services, and institutional arrangements an SEA develops, implements, and institutionalizes to provide dissemination services for the eventual improvement of local practice and enhancement of educational equity.

Through the SDGP, two types of awards are made to SEAs: (1) capacity building grants and (2) special purpose grants. Capacity building grants, the focus of this evaluation, support SEA efforts to build a "comprehensive" and "generalized" state dissemination system. Awards average about $100,000, are of one-year duration and are potentially renewable for three-to-five years. In practically all cases, the capacity building project represents only a portion of the SEA's dissemination system. An SEA's dissemination system may extend beyond the organizational boundaries of the agency to include other organizations with which the SEA cooperates in providing needed resources or services for dissemination. Special purpose grants, which average $37,000 each, support relatively low-cost, short-term SEA improvement efforts related to building a dissemination system. These grants are used to support such SEA activities as initial planning, training of personnel, or the development of specific dissemination resources. The Program supports the development of three major components: a resources component to store and retrieve information, programs, products, and technical expertise for educational practitioners; a linkage component to help educators seek and use knowledge and knowledge-based products; and a leadership/management component to coordinate, orchestrate, or articulate the numerous Federal and state dissemination programs at the SEA level so local practitioners may easily access and use any and all resources.

The NIE program announcement outlines two broad goals which SEAs are expected to accept while participating in the SCBP: they are to develop "comprehensive" and "generalized" capacity. NIE perceives the concept of "comprehensive" dissemination capacity "to involve the leadership and service capability to provide information and technical assistance in the solution of problems identified by the dissemination agency or its clientele."[2.1] According to the program announcement comprehensive capacity should include:

- Information Resources, that is, "a full range of resources including data, documents, products, and technical expertise;"
- Linkages, that is, "means of linking the client group to the resource base;" and
- Leadership, that is, "leadership and management arrangements which facilitate provision of services on any problem to all members of the client group."[2.2]

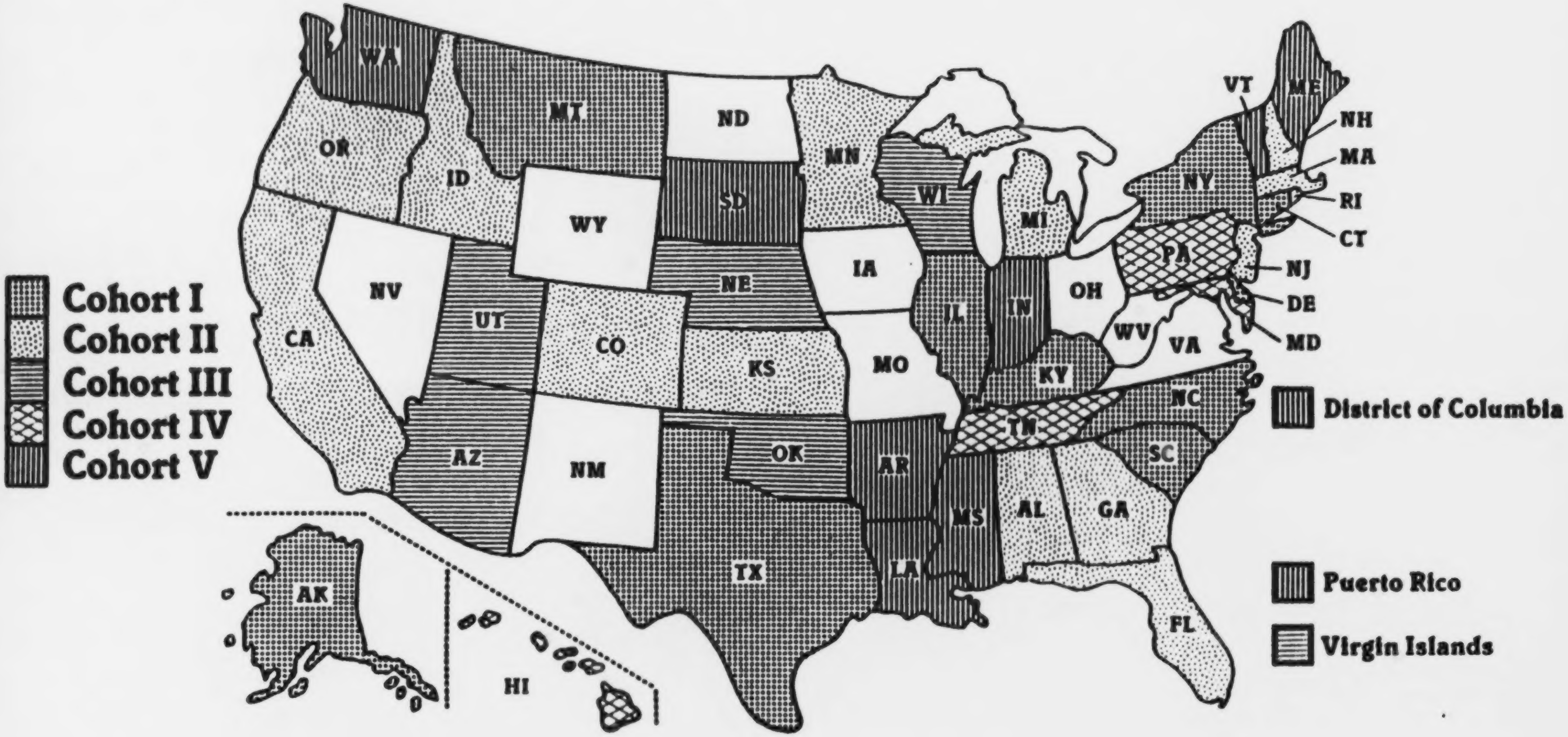
Developing "comprehensive" dissemination capacity relates to NIE's mission to improve the quality of education, or, as it is often stated, to improve the practice of education.

In describing "generalized" capacity, the NIE program announcement says that the dissemination programs developed by SEAs should provide access to all information resources for all educators regardless of subject field or role. Implicit in states' building "generalized" dissemination capacity is the second NIE goal of promoting equality of educational opportunity.[2.3]

In 1975, ten states were awarded capacity building grants and five states received special purpose grants. We have labeled these states receiving capacity building grants as Cohort I states. In 1976, fourteen new capacity building grants (Cohort II) and five special purpose grants were awarded. In 1977, six additional capacity building grants (Cohort III) and five more special purpose grants were awarded. In 1978, four new capacity building grants (Cohort IV) and two special purpose grants were awarded. In early 1980, ten new capacity building grants (Cohort V) but no additional special purpose grants were awarded.

Thus, since the SDGP began in 1975, a total of forty-one states, plus the Virgin Islands, District of Columbia, and Puerto Rico, have been awarded capacity building grants. During the same time period, seventeen special purpose grants have been awarded to sixteen states and territories, with one state receiving two such grants. In all but two cases, states that received a special purpose grant later applied for and were awarded capacity building grants. Figure 2.1 indicates those states that have received capacity building grants since the Program's inception.

While SEAs with capacity building grants are committed to building dissemination capacity, variation is permitted in the ways they proceed. NIE recognizes that differing requirements and constraints within states may influence how an SEA approaches the accomplishment of dissemination capacity. Therefore, the program announcement left to the states the design and operational procedures for achieving this capacity. For example, to help improve educational practice one SEA began by focusing on the development of special files to augment its resource base; another, by emphasizing the identification and training of linkage agents to work out of regional educational services centers; and still another, by strengthening the technical assistance activities of the SEA to assist in local problem-solving and improvement efforts. The Program is designed to accomodate such variation. However, despite such variations, the capacity building projects have a common ultimate purpose: to increase SEA dissemination capacity in order to facilitate local educational improvement and enhance educational equity.


Cohort I
Cohort II
Cohort III
Cohort IV
Cohort V
WA
OR
CA
ID
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NH
MA
RI
CT
NJ
DE
MD
AK
HI
District of Columbia
Puerto Rico
Virgin Islands

FIGURE 2.1 States Receiving Capacity Building Grants Through NIE's State Dissemination Grants Programs by 1980

Designing the Program

Both legislative and programmatic influences contributed to the final design of the SCBP. Although these two types of influences are interrelated, they are discussed separately. The legislative review provides a chronological history of the laws which contained dissemination mandates and resulted in specific agencies and programs which influenced the design of the SCBP.

Legislative Influences

Three major pieces of Federal legislation provided a foundation for the design of the SCBP: (1) the National Defense Education Act of 1958, (2) the Elementary and Secondary Education Act of 1965 (and its amended versions), and (3) the Education Amendments of 1972, creating the National Institute of Education.

The National Defense Education Act. Title VII-B of the National Defense Education Act (NDEA), 1958, contained the first contemporary Federal dissemination authority:

> [The U.S. Commissioner of Education is authorized to] *disseminate information concerning new educational media*... to State and local education agencies, for use in their public elementary and secondary schools, and to institutions of higher education [by entering into contracts for] (1) studies and surveys to determine the need for increased or improved utilization [of instructional media]; (2) catalogs, reviews, bibliographies, abstracts, analyses of research and experimentation, and such other materials as are generally useful in the encouragement and more effective use [of instructional media]; (3) [providing upon request] advice, counsel, technical assistance and demonstrations to state or local educational agencies and institutions of higher education undertaking to utilize such media.[2.4] [emphasis added]

Under Title VII-B, NDEA, elements of the Educational Resources Information Center (ERIC) system were designed and a plan for the network of regional educational laboratories was developed.[2.5] ERIC now operates as the major part of the resources component for educational dissemination systems, and the regional laboratories are an important component in the nationwide effort to improve dissemination capacity.

Elementary and Secondary Education Act. The passage of the Elementary and Secondary Education Act (ESEA) in 1965 gave rise to a burgeoning set of dissemination activities; over the next five years, the need for organizing such activities was increasingly recognized. In 1970, the first federal office for educational dissemination, the National Center for Education Communications (NCEC), was established. NCEC took over the operation of the ERIC system, sponsored a program of awareness and information analysis, initiated several system or network studies, and supported the Pilot State Dissemination Program. Provisions in ESEA Title I-B (Library and Information Science Research) and the original Title IV (Libraries, Learning Resources, Educational Innovation and Support) were used to establish NCEC.

In addition to Title I and Title IV, two other ESEA titles were associated with efforts to improve dissemination capacity. Title III (Special Programs and Projects) provided funds to develop new, more personalized approaches to promote the identification and implementation of exemplary educational programs in local schools. In 1974, the National Diffusion Network (NDN) was established using ESEA Title III funds to ensure the diffusion of Title III projects. NDN uses state facilitators to link local educators with exemplary practices and to promote their implementation in local schools. Only projects that have been approved or validated by the Education Division's Joint Dissemination Review Panel (JDRP) are eligible for funding through the NDN.

Title V (Strengthening State Departments of Education) provided support to SEAs to help them promote school improvements within their states. SEAs used the general aid to support a wide range of activities, including information centers, regional education centers, planning, and research. Dissemination activities were suggested, but not mandated, as one means of strengthening SEAs.[2.6] Thus, ESEA promoted efforts to improve dissemination capacity by providing support for the first Federal office of dissemination, a variety of information and personalized dissemination programs, and SEA activities to improve educational practice.

Education Amendments of 1972. Major responsibility for some Federal dissemination activities was assigned to the newly created National Institute of Education by the Education Amendments of 1972. At the same time the Office of Education (OE) continued support of dissemination activities related to its own programs.[2.7] The dichotomy resulting from legislation mandating dissemination by both Federal educational agencies was recognized by the members of Congress. The Congressional Record (House, May 23, 1972) contained the following clarification:

> The...intent is that the whole complex set of dissemination/utilization functions that are desirable in this area [become] a major responsibility of the National Institute of Education. This set of functions should include, but not be limited to, the present...activities of NCEC [the National Center for Educational Communications]...These functions also should include other dissemination activities that might be tailored to the Institute's products and programs in the future...
>
> ...This range of functions will provide the Institute with an array of dissemination capabilities, from the single most significant machine information retrieval system to the present system of dissemination agents in the field, who work with states, local agencies, and teachers to help them apply the best of current knowledge to their problems...Obviously, the Office of Education must have the capability to disseminate information about its own programs and their results. The conferees expect, therefore, that the Office of Education will continue these functions with respect to the publication of information about specific categorical or formula grant programs that have been authorized by law. The conferees do not, however, intend that the Office of Education undertake the major responsibilities of dissemination, which are vested in the Institute.[2.8]

NIE initially inherited $110 million work of programs which were transferred from OE.[2.9] Among the programs transferred were $15 million in dissemination programs, including the largest component of these programs, ERIC. In addition to ERIC, NIE operated and continues to operate many other dissemination programs designed to improve educational practice and enhance equity. A majority of these programs are under the direction of NIE's Dissemination and Improvement of Practice (DIP) unit.

Within DIP are three major components:

- Information Resources (IR) which includes ERIC and other programs to enhance the quality and quantity of available resources;
- Regional Programs (RP) which currently consists of five major programs designed to develop external support structures to facilitate knowledge use. Programs within RP include the State Dissemination Grants Program, the Research and Development Exchange, Regional Services, Research and Development Utilization, and two multi-state consortia; and
- Research on Education Practice (REP) which evaluates the effectiveness of other DIP strategies and attempts to generate knowledge which can be further used to improve dissemination and knowledge use. The NTS study of the State Dissemination Grants Program is sponsored by REP.

Thus, NIE's creation, and particularly, DIP's efforts have contributed to the development of a "substantial infrastructure of organizations and services"[2.10] which remain important elements in the nationwide effort to improve dissemination capacity.

Yet, it must be emphasized, that while NIE may have been charged by the Congress with the major responsibility of providing leadership in the use of knowledge to improve school practices this charge did not appreciably alter the real balance of extant dissemination activity. The Office of Education continued to manage those substantive programs which had a dissemination component, e.g., Vocational Education, Title IV-C, etc., and eventually the National Diffusion Network. Thus, the Office of Education did undertake, or continue to discharge the major responsibility in the administration of dissemination activities. To understand this reality is to understand in part, the continued tension between and fragmentation of dissemination efforts. This fragmentation reflects the fact that each program with a dissemination component continues to conduct its own dissemination activities, just as OE and NIE maintained responsibility over their respective programs. Fragmentation of dissemination activities continues between the programs sponsored within OE and NIE as well as between OE and NIE. One of the major objectives expressed for the SCBP is to provide leadership to "coordinate, orchestrate or articulate the numerous Federal and state disseminations at the SEA level so local practitioners could easily access and use any and all resources." This objective places the major onus for achieving coordination between dissemination programs upon the states, without concommitant Federal effort or support.

Programmatic Influences

To meet their general dissemination mandates, NIE and OE developed dissemination programs which used two primary strategies to improve educational practice: information strategies and in terpersonal strategies. Both strategies were incorporated in the design of the SCBP.

Information Strategies. One of the premises underlying the design is that practitioners need information to make knowledge and knowledge-based materials available to local practitioners.

ERIC was viewed as the "backbone" of printed educational materials. Elements of ERIC were designed under the dissemination authority given to the

U.S. Commissioner of Education in 1958 by NDEA, and the system was first operated under NCEC contracts. The ERIC system acquires, processes, stores, synthesizes, and makes educational information easily retrievable for practitioners. Now managed by NIE, ERIC is a network of sixteen decentralized information clearinghouses and four centralized processing and management centers. ERIC has both a journal articles file and a fugitive documents file, with a third file of educational practices currently under development and testing.

In addition to ERIC, several other information-analysis programs were initiated to help practitioners use knowledge more easily. NCEC's Putting Research into Educational Practice (PREP) program developed packaged information packets to increase information use. Another program, Project Information Packages (PIPs), was designed to increase adoption of exemplary projects. PIPs provided school districts with a set of interrelated workbooks on planning, implementing, managing, and evaluating specific projects. Today, ERIC, PREP, PIP, and other such programs are often included in a state's information resource base.

Interpersonal Strategies. A second premise underlying the design is that "people helping people" is the best way to get printed materials used. This premise was incorporated in a second program component, linkage.

Several programs involving interpersonal strategies to get knowledge used influenced the design of the SCBP. Most notable were two NIE-sponsored programs, the Pilot State Dissemination Program and its "second generation" projects.

The Pilot State Dissemination Grants Program (1970-1972) provided grants to three states (Oregon, South Carolina, and Utah) to implement a single, Federally-designed model which emphasized the use of a set of state resources, including ERIC materials, and the employment of full-time field agents to work with practitioners. The evaluation results of this pilot program stressed the necessity of personal linkers for ensuring successful usage of ERIC and other printed materials by local practitioners.[2.11]

The success of the Pilot State Dissemination Grants Program led OE (and then NIE) to support seven state projects (District of Columbia, Florida, Iowa, Kansas, North Dakota, Rhode Island, Massachussetts, Texas) and three intermediate agency projects (Massachusetts, Pennsylvania, California) in the implementation of variations of the Pilot State model (1971-1974). The "second generation" projects were based on designs developed by the grantees to meet their particular needs. Unlike the pilot model, these projects primarily used part-time agents who were already involved in school improvement activities. Learning from the experiences of these programs, NIE stressed the importance of personal linkers for ensuring successful information use, and permitted states a great deal of flexibility in designing their individual projects.

Planning for the Program[2.12]

Even with the abundance of printed and interpersonal programs, a gap continued to exist between educational research and educational practice.

In March 1973, the National Institute of Education conducted a planning meeting with SEA representatives to discuss how one might productively spend Federal funds to enhance state dissemination capability. The planning group examined whether mutually beneficial activities could be undertaken within the constraints of available dollars and Federal procurement regulations. The SEA representatives proposed that states "be given latitude to develop their own analysis of the status and efficacy of education dissemination."[2.13] Subsequently, in 1974 a group of seven SEAs submitted an unsolicited proposal to NIE "to design and conduct an analysis of state education agency perspectives on issues relevant to Federal-state dissemination roles."[2.14] Participating states in the funded Interstate Project on Dissemination (IPOD) included Kentucky, Montana, New Jersey, North Carolina, Oregon, Rhode Island, and Texas.[2.15]

The IPOD study included:

- a historical review of the roles and relationships which existed between and among state and Federal education agencies;
- a comprehensive analysis of Federal education legislation and regulations for clarification of dissemination requirements; and,
- a framework which identified and described the activities and resources of a comprehensive state dissemination program. For the first time, the extent of fragmentation of Federal dissemination initiatives and the adverse effect that fragmentation had on dissemination at the state level was documented. The IPOD study identified a total of 208 dissemination requirements in the Federal education legislation and regulations with 54 agents or agencies assigned responsibility for these activities.

Based upon this three-part study, the IPOD group outlined eight recommendations which called for:

- the educational community's adoption of a consistent statement relative to dissemination activities;
- SEA recognition of dissemination as a major function and movement toward development of a coordinated, integrated system within each agency;
- clearer delineation of roles and responsibilities relative to dissemination in units under the Assistant Secretary for Education;
- development and implementation of a plan for a nationwide system of sharing educational knowledge;

- allocation of adequate resources for dissemination at both the state and Federal levels, and legislative encouragement of an agencywide dissemination function at all levels;
- increased availability to states of technical assistance as they develop dissemination capabilities;
- development and funding of programs of inservice and preservice training; and
- regular reevaluation of dissemination in light of the state-of-the-art.[2.16]

Both the IPOD study and the previous planning meetings influenced the design of NIE's capacity building strategy. That strategy involves investment of Federal funds in "a collaborative, time-bound (three-to-five year), cost--sharing basis to underwrite the development of resources and of competence to conduct dissemination activities in organizations which [were] already major actors in education dissemination."[2.17] Funds invested in this strategy thus constitute "leverage" money. The funds focus staff attention and management interest on effective use of existing resources.

Several reasons for selecting SEAs as the first group to participate in the capacity building strategy were enumerated by the program's designers: they were limited in number; they exercised the major constitutional responsibility for education; they had leverage to apply a variety of resources to educational problems; and some of them were already actively developing dissemination capacity.[2.18] The selection of SEAs as the first eligible group was viewed in some political circles as a way to gather needed support for NIE from the Council of Chief State School Officers. (The Council is an organization of state commissioners and superintendents of education from the fifty-seven states and territories.)

Concurrent Efforts

Much has transpired since the first grants were awarded in 1975. Both information strategies and interpersonal strategies for improving educational practice have been refined. And, there has been some movement at both the Federal and state levels toward coordination of dissemination activities. Among the important activities which have contributed to the current status of dissemination are the following: (1) Briefings by the Interstate Project on Dissemination (IPOD) Group, (2) the Dissemination Analysis Group, (3) the National Dissemination Forums, (4) the State Dissemination Leadership Project, (5) the Research and Development Exchange Project, (6) the Research and Development Utilization Program, (7) changes in Federal education legislation since SDGP's inception, and (8) the creation of a cabinet-level Department of Education. Such activities are highlighted in the following section.[2.19]

Briefings by the IPOD Group

Concurrent with the completion of their study, the IPOD group arranged several briefings with both Federal and state agencies. At each briefing, the study's findings and recommendations were reviewed. The first briefing was to a cadre from top management of NIE, the funding agent for the project. A second was to a meeting of the Dissemination Policy Council, established by the Assistant Secretary for Education with membership from both NIE and OE. A third briefing followed with an audience composed of dissemination representatives named by each Chief State School Officer. And, another briefing was held with the Council of Chief State School Officers.

Using the IPOD results, the Council of Chief State School Officers revised its policy statement regarding dissemination. Their latest dissemination policy statement reads

> Proven educational practices are now available while others are being developed through research and development efforts and local school initiatives. An effective system for disseminating successful practices to potential users in view of their own identified needs is indispensable in the effort to improve education.
>
> The Council urges each chief state school officer to promote a coordinated and integrated dissemination system within his or her agency. The Council also urges Congress and federal education agencies to reduce fragmentation of federal dissemination efforts. And finally, it advocates joint action by state and federal agencies to set up a nationwide system for sharing knowledge about education.[2.20]

After January 1976, the IPOD study was available to provide guidance for development of the capacity building projects, and there is evidence in some proposals that the framework was used. The fact that some of the member states of IPOD were also among the first cohort of funded states implies that the planning framework also gave direction to the development of these states' dissemination systems.[2.21]

Dissemination Analysis Group

In January 1976, the Dissemination Analysis Group (DAG) was established by the Dissemination Policy Council to examine "the present strengths and weaknesses of educational dissemination in the nation and what policies and policy changes at the Federal level might be implemented to help deal with the weaknesses."[2.22] DAG was composed of twelve government and non-government specialists. Following a year-long study, the group issued a report which underscored and expanded the recommendations of the IPOD study. Although a number of DAG's specific recommendations were addressed to the Federal level, action steps outlined by DAG were applicable to the total dissemination community. IPOD had spoken from the state point of view; DAG broadened the outlook to include the Federal perspective. In addition, representatives involved in the study from agencies other than Federal and state governmental units contributed to its nationwide focus.

As IPOD had, DAG too, saw a need for consistency of definition of dissemination, widespread training programs, increased financial resources for dissemination, and mechanisms at various levels to provide for better coordination of dissemination activities.[2.23] Furthermore, both IPOD and DAG directed attention to evaluation of dissemination activities, with DAG also recommending improvement in research, development, and collection of descriptive data. Again like IPOD, DAG addressed the need for a nationwide sharing or dissemination system.

DAG also defined four categories of dissemination activities, a definition which continues to influence the field of dissemination. Those categories are:

- Spread: The one-way casting out of knowledge in all its forms: information, products, ideas and materials, "as though sowing seeds" (e.g., mass mailings, press releases).
- Exchange: The two-way or multi-way flow of information, products, ideas and materials as to needs, problems, and potential solutions (e.g., needs sensing or marketing approach).
- Choice: The facilitation of rational consideration and selection among those ideas, materials, outcomes of research and development, effective educational practices, and other knowledge that can be used for the improvement of education (e.g., catalogues or resource guides or promising practices, resource exchanges, conference or workshop displays).
- Implementation: The facilitation of adoption, installation, and the ongoing utilization of improvements (e.g., adoption grants for training or technical assistance for the installation of validated programs).[2.24]

First National Dissemination Forum

Capitalizing on DAG's efforts, the First National Dissemination Forum was convened in June 1977. Held in Arlington, Virginia, the Forum brought together approximately two hundred people from a variety of dissemination backgrounds and locations. The Forum was primarily planned and cosponsored by five different dissemination programs in OE and NIE, tangible evidence that there was some recognition of the importance of coordinating efforts at the Federal level. Although the Forum was primarily Federally-conceived and initiated, its participants represented almost the entire spectrum of dissemination activities.

Perhaps the most far-reaching action of the Forum was adoption of a Statement of Agreements among dissemination educational professionals, which reaffirmed many of the IPOD and DAG recommendations. Among the most influential was the agreement upon the statement of the DAG categories-of-dissemination definition. IPOD identified the need for consistency of statement; DAG developed the definition; and the First Forum gave it acceptability and legitimacy. Many capacity building projects use the definition in describing their state dissemination systems. At the Federal level there is also evidence of acceptance of the definition, as it has been used to describe dissemination efforts by NIE, the National Science Foundation, Vocational Education, and other units. Important as adoption of the Agreements was, however, the Forum's most noteworthy accomplishment may have been the visibility it gave to all aspects of dissemination. And, that visibility has continued.

Second National Dissemination Forum

Evidence of what was happening in dissemination during the years following the IPOD and DAG reports and the first Forum can be seen in the Second National Dissemination Forum held in Arlington, Virginia in August 1978. Cosponsored by twenty-nine different dissemination programs in NIE and OE, the Second Forum, unlike the first, was planned by a joint Federal nonFederal steering committee.

In the words of the Forum report "planning extended over nearly a year, and more than 300 people inside and outside the government were involved."[2.25] Approximately one thousand professionals in dissemination participated in Forum activities. The report notes that "the size and scope of the second Forum suggest that education dissemination is finally viewed as an important strategy for contributing to educational improvement efforts nationwide."[2.26]

Despite such positive signs of growth, however, both conference planners and Forum participants surfaced a number of issues which still needed to be addressed. Some issues, such as the need for training, evaluation, descriptive data, coordination, and support expressed in adequate resources had been identified both by IPOD and DAG and addressed by the Agreements. Other issues, such as the question of whether dissemination professionals should be "simply serving the stated desires of clients, or meeting clients' true needs,"[2.27] were highlighted for possibly the first time. Although the quality of "what is disseminated"[2.28] had concerned people in the field for some time and had been spoken to in both the DAG report and the Agreements, there seemed to be renewed focus upon "the need for some screening process to ensure that proven quality projects, practices, and materials are made available to local districts."[2.29] Forum participants reported "almost no dispute" about the definition of dissemination, with the four-level definition apparently accepted; however, they did note that "the definitions have a number of weaknesses" and further examination would be appropriate.[2.30]

The State Dissemination Leadership Project

During the years of the IPOD and DAG studies and the two national dissemination forums, there were other activities which also impinged upon the development of education dissemination activities. Among these was the State Dissemination Leadership Project (SDLP), an effort currently funded by NIE. The SDLP has leadership, service, and communication functions. Currently envisioned as the mechanism to provide "a voice that represents the state agency perspective to NIE,"[2.31] the SDLP has also been seen as a vehicle by which training opportunities (recommended by IPOD, DAG, and the Second Forum) could be made available to states. The SDLP also provides a mechanism for communication between and among state dissemination representatives.

The Research and Development Exchange

Also of importance in development of dissemination at both the state and national levels has been NIE's Research and Development Exchange (RDx), initially funded in 1976. There are now seven exchanges in operation, each headquartered at a regional education laboratory; two others are currently in the planning stages. Although each RDx has developed in light of its own laboratory's vision of its mission, there have been some common elements, including support of state efforts to build dissemination capacity. The exchanges have been particularly helpful in providing training opportunities for state dissemination staffs, and cosponsoring the regional dissemination forums. Exchanges have sponsored dissemination forums in individual states within their service areas or have worked with the OE regional offices in convening regional educational improvement forums. A review of some of the regional forum agendas reveals that IPOD, DAG, the Agreements, and the Second Dissemination Forum were all useful in providing direction for these meetings.

The Research and Development Utilization (RDU) Program

The RDU program was designed by NIE to help schools develop local capacity to undertake educational practice improvement activities, including the use of research-based innovations. A major component of the program was the use of intermediaries, or linkers to help make local schools better users of R&D products and better implementors of improved practices. Initially funded in 1976, the RDU program was completed in 1979.[2.32] RDU supported 7 projects that served 19 states, 240 school districts, and approximately 90,000 students. Four were under the direction of SEAs (Florida, Georgia, Michigan, and Pennsylvania) and three were managed by consortia (NEA, based in Washington, D.C.; the NETWORK Consortium, based in Andover, Massachusetts; and the Northwest Reading Consortium, based in Washington's SEA). SEAs served by the three consortia include Alabama, Alaska, California, Connecticut, Idaho, Iowa, Kansas, Massachusetts, Michigan, Minnesota, Ohio, Oregon, Pennsylvania, Tennessee, Washington, Wisconsin, and Wyoming. Some capacity building states have used RDU linkers as part of their overall strategy to develop an SEA dissemination system.

Legislative Changes

Two significant changes in ESEA have enabled SEAs to become even more active in the school improvement process since the SCBP's inception in 1975. The first relates to the titles under which the NDN was developed; the second relates to ESEA Title V.

NDN is a continuing program that includes a national validation process to identify exemplary programs, and individuals called "facilitators" who link local schools with potential solutions and assist in the implementation of selected programs.[2.33] Until 1976, SEA personnel were not eligible to serve as NDN facilitators. Since then, SEA personnel are not only eligible but also encouraged by OE to serve as facilitators. In 1976, the panel responsible for validating NDN programs was expanded to include representatives from NIE as well as OE and became known as the Joint Dissemination Review Panel (JDRP). Until 1980, only educational programs developed with Federal funds were eligible for distribution through NDN; now, projects developed with other funds are also eligible. In addition, the range of eligible projects has been expanded from elementary and secondary areas to "all content areas."[2.34] JDRP approval is still required before a program can be accepted for distribution. With the Education Amendments of 1978, the original Title III became known as the "new Title IV," and the wording supporting educational improvement activities was made more explicit. Title IV provides financial assistance to state and local education agencies "to strengthen the quality of elementary and secondary education through support of locally initiated projects and activities designed to improve educational practices."[2.35]

Another piece of ESEA legislation which has been modified over time to further enhance the development of nationwide dissemination configuration is Title V. This legislation helps SEAs promote improvements within their states by providing funds to "strengthen" SEAs. The original authorization of ESEA Title V and reauthorizations through 1974 suggested, but did not mandate, dissemination activities as one means of strengthening SEAs and improving educational programs. The Educational Amendments of 1978 created a "new Title V" (State Leadership) under which SEAs must meet a specific dissemination requirement to qualify for available funds. The "new Title V" stipulates:

> Each State educational agency shall carry out a comprehensive program to provide technical assistance to local educational agencies and State agencies with respect to the use of funds received...Such a program shall include technical assistance for management procedures, for planning, development, implementation, and evaluation of programs, and for preparation of applications, as well as other forms of technical assistance needed by local educational agencies and State agencies. Each State educational agency shall also adopt effective procedures for disseminating to local educational agencies and State agencies (1) significant and relevant information derived from education research, (2) information about successful compensatory education projects, (3) information about other Federal and State funded programs which may provide needed health, social and nutrition services to eligible participating children under this title, and (4) such other information as will assist local educational agencies, and State agencies in planning, developing, implementing, and evaluating programs subject to this part.[2.36] [emphasis added]

Thus technical assistance and dissemination are emphasized in the "new" Title V. Further, as of October 1, 1979, all states receiving funds under ESEA Title I or Title IV had to meet this requirement.

The Education Department

The creation of a cabinet-level Education Department has the potential to strengthen dissemination efforts nationwide by enhancing the way the Federal government organizes and marshalls its efforts to develop and use knowledge to improve education. The statute creating the Department specifically recognizes and elevates the importance of dissemination activities by establishing an Office for Educational Research and Improvement (OERI) headed by one of the six assistant secretaries. The new Department consolidates dissemination activities previously located in several agencies, including NIE (e.g., ERIC, SDGP), OE (e.g., NDN), the National Science Foundation, and parts of HEW not within the old domain of the Assistant Secretary of Education.[2.37] The first Secretary of Education has already stressed the importance, if not the necessity, of dissemination for the improvement of educational practice. This organization change, coupled with strong departmental leadership, represents the latest opportunity to improve dissemination capacity nationwide.

Summary

In this chapter we have presented an overview of NIE's State Capacity Building Grants Program and reviewed some of the major influences upon its development. The historical review reveals that both educational reform and political reality influenced the programs design and implementation. The intent of educational reform was to help states organize their efforts to get knowledge used for the improvement of educational practice and equity. The political realities were evident, to some extent, in the selection of SEAs as the first organization to participate in the Program.

The strategy employed by NIE in implementing the capacity building program stressed the political reality of cooperation between the states and NIE in planning for the general guidelines for the project and the strategy of a non-categorical grant within which states were free to develop a dissemination system to meet their own needs and circumstances.

To date, 44 SEAs have participated in NIE's capacity building strategy. That strategy involves investment of Federal funds in a collaborative, time-bound (three-to-five year), cost-sharing basis to underwrite the development of technological and organizational capabilities to conduct dissemination activities. SEAs participating in the Program are to develop three major components: a resources component to make information, programs, products, and people available to educational practitioners; a linkage component to help educators seek and use knowledge and knowledge-based products; and a component to coordinate the numerous Federal and state programs at the SEA level so local practitioners could easily access and use any and all resources.

When the Program was designed, SEAs did have some of the ingredients necessary to develop the three major components:

- Information Resources - with respect to information resources, ERIC and other national files were accessible, some information analysis materials existed, and federally validated promising programs had been identified and procedures established for their installation in local schools.
- Linkages - similarly, with respect to the linkage component, numerous legislative and programmatic influences had created a variety of linker programs, like the Pilot State effort, NDN, and RDU. But many people doing very different things were called "linkers."
- Leadership - with respect to the leadership/management component, significant dissemination activities were being carried out by a broad range of organizations, but fragmentation at the Federal level was mirrored at the SEA level.

Using these ingredients as a foundation, SEAs have entered the State Capacity Building Program in order to enhance their capacity to provide dissemination services.

The overview of the history and development of the SCBP presented in this chapter provides a context within which to place the later description and analyses of state efforts to develop and institutionalize dissemination systems using NIE's money as "leverage." Only through a recognition of the dynamics of Federal and state efforts to enhance dissemination activities can the development of building capacity in SEAs be appreciated.

FOOTNOTES

2.1 National Institute of Education, Program Announcement: State Dissemination Grants Program, FY 75, p. 11.

2.2 Ibid., p. 11.

2.3 Although the NIE did not enunciate explicitly the twin goals until 1978, the goal's were implicit in the Institute's original authorizing legislation. As such, they were incorporated into the NIE State Dissemination Grants Program, and used both to determine grant awards and to evaluate program effects.

2.4 P.L. 85-864, September 2, 1958, National Defense Education Act, Title VII-B, "Research and Experimentation in More Effective Utilization of Television, Radio, Motion Pictures, and Related Media for Educational Purposes," Sec. 7321.

2.5 Elements of ERIC were prepared by three institutions: Columbia University, National Education Association, and Case Western Reserve University. Pennsylvania State University developed the plan for a network of regional educational laboratories.

2.6 For a more detailed analysis of SEAs' use of ESEA Title V, see Murphy, Jerome T., State Education Agenices and Discretionary Funds: Grease the Squeaky Wheel, Lexington, Massachusetts: D.C. Heath and Company, 1974.

2.7 In actuality, NIE provides less support for "utilization" (defined as dissemination and policy implementation demonstrations) than either OE or the National Science Foundation (Mason, Nelson, and Sowers, 1977, p. 21.)

2.8 U.S. Congressional Record, House of Representatives, May 22, 1972.

2.9 Sproull, L. et al., Organizing An Anarchy: Belief, Bureaurcracy, and Politics in the National Institute of Education, Chicago: University of Chicago, University of Chicago Press, 1978, p. 73.

2.10 National Institute of Education, Dissemination of Knowledge to Improve Practice, a briefing paper for the National Council on Educational Research, November 30, 1979, p. 10.

2.11 Sieber, S., Louis, K.S., and Metzger, L., The Use of Educational Knowledge, Bureau of Applied Social Research: Columbia University, September 1972.

2.12 Critical elements in The History of the Development of the SCBP by NIE may be omitted in this discussion. Indeed. it has been suggested that our discussion describes a rational decision-making history, thus giving an aura of legitimacy to the program. (Personal correspondence from Sam Sieber, January 20, 1981). However, since this study was not able to trace the "political realities" behind the program we suggest the reader refer to Ronald Corwin "The Politics of Program Design: Biography of a Federal Program in an Entreprenuerial Bureaucracy" Abt Associates, 1978, and to Lee Sproull, et at., Organizing an Anarchy; Belief, Bureaucracy and Politics in the National Institute of Education, Chicago; University of Chicago Press; 1978.

2.13 Haughey, C., "Dissemination Capacity Building and the State Dissemination Grants Program: An Improvement Stragegy," a background paper prepared for New Jersey's Title IV program staff, April 1979, p. 1

2.14 Interstate Project on Dissemination, Report and Recommendations, Raleigh, N.C.: State Department of Public Instruction, January, 1976, p. ii.

2.15 Also serving as working members of the IPOD group were the original NIE program officer for the concurrently-developed SDGP and the individual who subsequently directed the NTS evaluation of the SCBP.

2.16 Interstate Project on Dissemination, Ibid., p. 53-55.

2.17 Haughey, C., Ibid., p. 6.

2.18 Ibid., p. 10.

2.19 This subsection is a revised version of a paper commissioned by NTS and prepared by Virginia Cutter, "Overview: 1976-1980," which summarizes significant events since the IPOD report influencing the development of dissemination capacity.

2.20 Council of Chief State School Officers, "1979 Policy Statements," Washington, D.C., p. 26.

2.21 Four of the IPOD states (Kentucky, Montana, North Carolina, Texas) applied for and were awarded capacity building grants in 1975; the other three IPOD states (New Jersey, Oregon, Rhode Island) received capacity building grants in 1976.

2.22 Dissemination Analysis Group, "Dissemination in Relation to Elementary and Secondary Education," (Final Report), Washington, D.C., 1977, p. 1.

2.23 Ibid., pp. 33-41.

2.24 Ibid., pp. 3-4.

2.25 1978 Dissemination Forum, Final Report, p. 4.

2.26 Ibid., p. 1.

2.27 Ibid., p. 10.

2.28 Ibid., p. 11.

2.29 Ibid., p. 10.

2.30 Ibid., p. 10.

2.31 State Dissemination Leadership Project, 1979-80 proposal to NIE, p. 1.

2.32 Abt Associates is conducting the RDU study for NIE. See Chabotar, K. J. and Kell, D. G., "Linking R&D with Schools: An NIE Program and its Policy Context," (Preliminary Report), Abt Associates Inc.: Cambridge, Massachusetts, September 1978.

2.33 For a more detailed examination of the NDN, see Emrick, John A., Evaluation of the National Diffusion Network, Vol. 1: Findings and Recommendations, Menlo Park, California: Stanford Research Institute, May 1977.

2.34 Federal Register, April 21, 1980, p. 26919.

2.35 P.L. 95-561, November 1, 1978, Elementary and Secondary Education Act, as amended, Title IV, Educational Improvement, Resources, and Support, Sec. 401.

2.36 P.L. 95-561, November 1, 1978, Elementary and Secondary Education Act, as amended, Title V, State Leadership, Sec. 505.

2.37 See Hawley, W.D. and Sheekey, A., "Research and Development in a Department of Education," Educational Researcher, November 1979, Vol. 8, No. 10, pp. 14-20.

3

THE STUDY APPROACH

This chapter describes our approach to conducting the study of the SCBP. First, the evaluation's basic objectives and major phases are delineated. Second, the conceptual framework for the evaluation is presented. Third, the varied data sources and data collection procedures are enumerated. The scope and limitations of the evaluation are discussed in a fourth section. Finally, an overview of the study approach is presented; the overview describes our approach to reporting findings, conclusions, and recommendations in the remainder of the report.

Evaluation Objectives and Phases

The evaluation was designed to address four basic objectives:

- To describe the state capacity building projects and the SEA dissemination systems within which those projects are located, taking into consideration the contextual characteristics of states.
- To describe changes in SEA dissemination systems and institutionalization taking into consideration what combination of contextual characteristics and project characteristics affect these changes.
- To review NIE's management of the SCBP and its operational procedures, such as proposal review, project funding policies, and project monitoring, and examine how these relate to operations at the project level.
- To derive policy recommendations which may help improve the SCBP and future dissemination programs.

The evaluation was comprised of four phases: (1) a design phase devoted to describing the Program, clarifying and translating the Program's goals into measurable variables, developing a design and appropriate instrumentation, and data collection and analysis procedures for the study; (2) a preparation period which included visits to 23 Cohort I and II projects, refinements in the study design, and approval of a forms clearance package; (3) the full-scale evaluation which included two waves of data collection; and (4) a dissemination phase in which the study's findings and implications were shared with policymakers, researchers, and practitioners. Figure 3.1 summarizes the three phases of the NTS study, highlights major data collection periods, and indicates how the NTS study fits into the overall time period of the NIE Program.

The Conceptual Framework

In order to meet the study's basic objectives, a conceptual framework was developed to specify and organize those variables which were to be studied. The conceptual framework (Figure 3.2) incorporates five components and specifies the relationships between the components. The five components of the framework are: (1) State and SEA Contextual Characteristics; (2) NIE Program Characteristics; (3) State Capacity Building Project Characteristics; (4) Facets of an SEA Dissemination System; and (5) Outcomes: System Outputs and Impacts. These components are further classified into three major categories for analytic purposes. These categories are: Context, Process, and Outcomes.

The Contextual Domain

Component 1: Contextual Characteristics. The first component refers to variables which describe contextual characteristics of the particular state and SEA. State characteristics include such variables as state size, existence

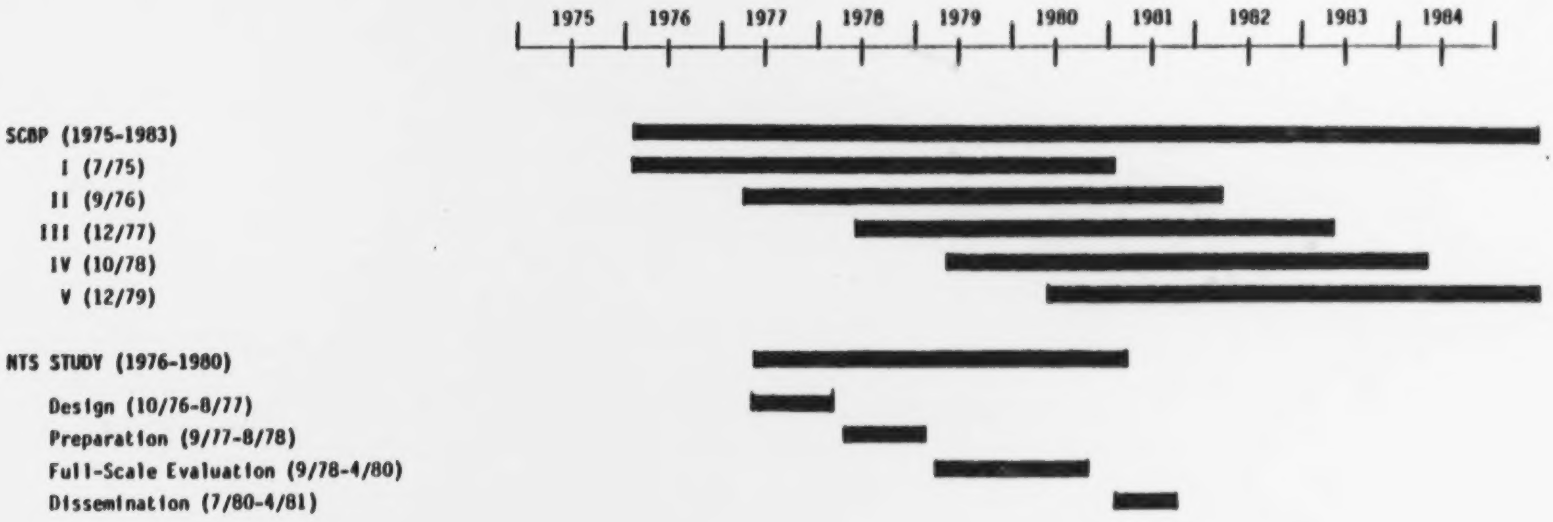

FIGURE 3.1 Timelines for the State Capacity Building Program (SCBP) and the NTS Study

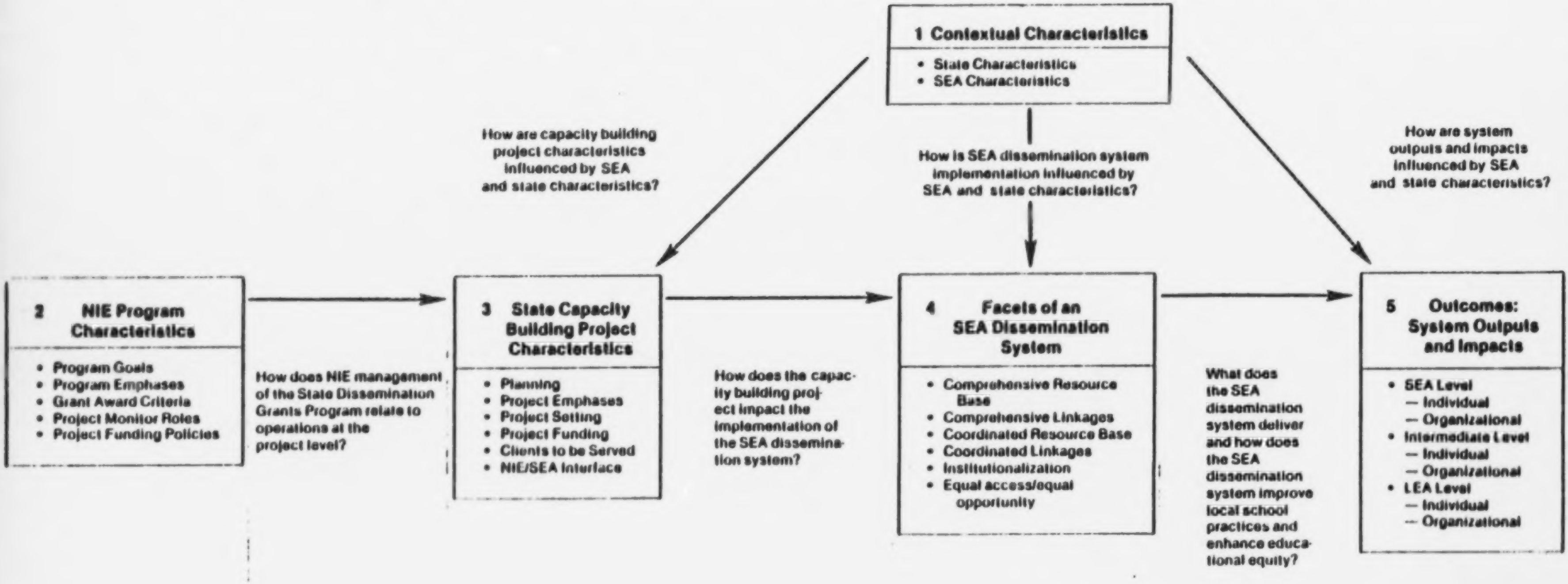
1 Contextual Characteristics
• State Characteristics
• SEA Characteristics
How are capacity building project characteristics influenced by SEA and state characteristics?
How is SEA dissemination system implementation influenced by SEA and state characteristics?
How are system outputs and impacts influenced by SEA and state characteristics?
2 NIE Program Characteristics
• Program Goals
• Program Emphases
• Grant Award Criteria
• Project Monitor Roles
• Project Funding Policies
How does NIE management of the State Dissemination Grants Program relate to operations at the project level?
3 State Capacity Building Project Characteristics
• Planning
• Project Emphases
• Project Setting
• Project Funding
• Clients to be Served
• NIE/SEA Interface
How does the capacity building project impact the implementation of the SEA dissemination system?
4 Facets of an SEA Dissemination System
• Comprehensive Resource Base
• Comprehensive Linkages
• Coordinated Resource Base
• Coordinated Linkages
• Institutionalization
• Equal access/equal opportunity
What does the SEA dissemination system deliver and how does the SEA dissemination system improve local school practices and enhance educational equity?
5 Outcomes: System Outputs and Impacts
• SEA Level
— Individual
— Organizational
• Intermediate Level
— Individual
— Organizational
• LEA Level
— Individual
— Organizational

Figure 3.2 A Framework for the Evaluation of the State Capacity Building Program

and use of intermediate or regionalized service agencies, school enrollment, number of school districts, and modernity (Herriott and Hodgkins, 1973). SEA characteristics include such variables as attitudes in the SEA towards change, centralization (Wirt, 1977), previous and current involvement of the SEA personnel in dissemination activities, and the relative influence of the SEA, intermediate education agencies (IEAs),[3.1] and LEAs in local educational improvement.

Component 2: NIE Program Characteristics. The second component presents factors which characterize the NIE Program, including its design and operation at the Federal level. Included are Program goals, Program emphases, grant award criteria, project funding policies, and project monitor roles.

The variables contained within Components 1 and 2 of our conceptual framework may be considered as the contextual domain, which includes both the legal/policy framework and the social/political setting within which the projects are situated. The legal/policy framework includes not only the SCBP and guidelines associated with the Program, but also other Federal and state dissemination programs and policies. The reader should note that we were not able to include all relevant information on these variables within our analysis. However, the influences of Federal and state activities must be recognized as potentially significant factors in building and operating a SEA dissemination system. Characteristics of states and SEA factors are domains which reflect the importance of the setting within which the project and the dissemination system operate. Included within this domain is the SEA's initial dissemination structure and capacity. This is a particularly important concern since the status of the dissemination system at the time of project initiation will have an influence upon the steps taken by the project and the changes which occur in building further dissemination capacity.

The Process Domain

Component 3: State Capacity Building Project Characteristics. The third component contains variables which describe the resultant program intervention at the SEA level; that is, the project's structure and activities. Project structure includes such variables as the project's number of years in SCBP, funding, location within the SEA, project director tenure, and management arrangements. Project activities include such factors as targeting clients for dissemination activities, building additional information files, working with IEAs to provide linkages to local school districts, and interacting with NIE.

Project characteristics may be considered as comprising the process domain, and include project structures and activities as well as other SEA dissemination activities. It must be noted that the actions taken by the state and the SEA are activities which tend to obscure the relationship between the project and the building of the dissemination capacity. Phrased in another way, the project is provided "leverage" money through which a wide range of activities are generated, activities which often extend beyond the project. At the same time, the state/SEA may also be developing additional activities outside of the project which enhance the dissemination system. As might be anticipated, this study could not document all of these activities or separate the influence of state/SEA activities in contrast to the contributions of project activities. (Neither could the individual states.) However, we made an attempt to detect effects resulting from the Program through a comparison with non-SCBP states.

The Outcomes Domain

The outcomes domain includes two categories of variables within the Conceptual Framework: Facets of the Dissemination System, and Dissemination System Outputs and Impacts. The outcomes domain includes not only those which are appropriate objectives for this study to measure, that is growth of dissemination capacity (i.e., Facets of an SEA Dissemination System), but also those which reflect the long range goals of Federal policy as stated by NIE (i.e., Dissemination System Outputs and Impacts).

Component 4: Facets of an SEA Dissemination System. The fourth component refers to those elements which compose a dissemination system, that is, the resources, linkers, linkages, services, and institutional arrangements an SEA develops, implements, and institutionalizes to improve local educational practice and enhance educational equity. An SEA dissemination system, of which the capacity building project is usually just a portion, is depicted as being comprised of six facets:

- Facet 1, Comprehensive Resource Base, refers to the types of resources (e.g., ERIC, promising practices files) that the SEA has the ability to access.
- Facet 2, Comprehensive Linkages, refers to the availability and use of a variety of individuals (e.g., SEA staff, IEA staff, LEA staff) and media (e.g., radio, television, publications) to connect educators with the information and services needed to improve local school practice.
- Facet 3, Coordinated Resource Base, refers to the extent to which various mechanisms for coordinating resources (e.g., formal referral process, knowledge by resource base personnel of other resources, use of other resource bases) are available and used.
- Facet 4, Coordination of Linker Activities, refers to the extent to which linkers coordinate their activities with resources in order to provide assistance to improve local school practice.

- Facet 5, Institutionalization, refers to the extent to which the SEA dissemination system remains after NIE funding of the SEA's capacity building project terminates; the provision of funds by the state for dissemination and statements by the chief state school officer supporting dissemination are examples of variables included in the Institutionalization facet.

- Facet 6, Equal Access/Equal Opportunity, refers to the extent to which the SEA dissemination system provides resources to all educators on all topics, such as special materials on the handicapped, minorities, and women, and the targeting of dissemination efforts to individuals who work with these categories of students.

Component 5: Dissemination System Outputs and Impacts, refers to outputs of the SEA's dissemination system and their effects on the improvement of local practice and enhancement of educational equity. These system outputs and impacts relate to the longer range goals of improving local educational practice and enhancing educational equity. An investigation of these outcomes is beyond the scope of this study; however, when possible, we present descriptions indicative of the effect of dissemination capacity building upon these outcomes.

Data Sources and Data Collection

Sources of data for the evaluation were varied. They included: (1) two waves of data collection from Cohorts I, II and III capacity building projects; (2) additional data collection from Cohort IV and V states and non-program states; (3) case studies of five projects; (4) interviews with NIE personnel involved in the design and implementation of the SCBP, and (5) information obtained from a review of existing documentation.

Cohorts I-III States

Data were collected from Cohort I, II, and III states in Fall 1978 and Fall 1979. In Fall 1978, questionnaires were sent to Project Directors and interviews were conducted on-site with three respondent groups in each state:

- Capacity building project directors. Three instruments were administered to the project directors or their project managers: (1) Project Director Questionnaire (PDQ), an instrument to collect project director assessments of contextual characteristics, project characteristics, and system characteristics, (2) Capacity Building Indicants (CBI), a survey instrument that collects project director assessments about the status of the SEA Dissemination System and (3) open-ended interviews administered during the Fall 1978 site visits.

- SEA administrators. The project directors each nominated a maximum of 10 SEA administrators. From these nominations, NTS selected five respondents within each state: three administrators who functioned near or at the same management level as the project director and two administrators who functioned at somewhat higher levels than the project director. Each selected respondent was administered a structured interview guide that sought information about SEA organizational context and climate.

- Information resource base staff. This sample consisted of persons identified by the project directors as the individuals most directly responsible for the information resource bases used by the projects. Each was asked to verify or explain their project director's answers to questions in the PDQ about the project's information resource base.

In Fall 1979, the Project Director Questionnaire and the Capacity Building Indicants survey were readministered to the Project Directors in Cohorts I-III.

Cohorts IV, V, and Non-SCBP States

In Fall 1979, adapted versions of the PDQ and CBI were used to collect data from states which had been recently funded and from non-SCBP states. The more recently funded states (Cohorts IV and V) were not available for data collection in 1978. Non-SCBP states were sent the data colletion instruments in order to provide a point of comparison with the SCBP states. Respondents for the non-SCBP states were the representatives to the NIE-sponsored State Dissemination Leadership Project.

Site Visits

Site visits were conducted in February 1980, Illinois and Texas (Cohort I states) and to Kansas, Michigan, and Rhode Island (Cohort II states).

In these states, two senior researchers from NTS held interviews with SEA administrators, SCBP project personnel, and representatives of other SEA agencies which are or could be a part of, or could benefit through, the SEA dissemination system.

NIE Program Officers and Project Monitors

Open-ended interviews were administered to NIE program officers (i.e., those involved with overall management of the Program) and project monitors (i.e., those whose SCBP responsibilities involve only monitoring one or more SCBP projects) regarding the orientation, influence, and expectations of the Program and their perceptions of the Federal role in the operation of the capacity building projects. Respondents included both current and former NIE staff.

Document Review

In addition to obtaining information from the states and NIE, the NTS study team reviewed a variety of documents. For each capacity building project included in the study, the NTS team conducted a file review of all available first-year and continuation proposals and quarterly reports. In addition, the study team reviewed previously-prepared reports (i.e., 1976 State Reports, 1977 State Abstracts, 1978 State Abstracts, 1979 Abstracts) which describe individual capacity building projects. The NTS study team also reviewed NIE program announcements and available grant negotiation documentation. Finally, the NTS study team collected and utilized statistical data regarding SEA and state contextual characteristics from appropriate sources (e.g., National Center for Educational Statistics).

Relationships among the study objectives and various data sources are indicated in Figure 3.3. A more detailed summary of data collection methods and data sources is presented in Figure 3.4.

	DATA SOURCES		
STUDY OBJECTIVES	QUESTIONNAIRES	DOCUMENT REVIEW	INTERVIEWS
1. Description of Projects and Systems; Impact of Context	PDQ, CBI	Proposal Analysis Case Materials Statistical Data Policy Statements	Site Visits
2. Description of System Changes and Institutionalization; Impacts of Context and Projects	PDQ, CBI	Proposal Analysis Case Materials Statistical Data Policy Statements	Site Visits
3. NIE Management of the SCBP	PDQ, PDIG	Proposal Analysis NIE Document Review Proposal Awards Project Directors' Documented Needs	NIE Visits

FIGURE 3.3 Relationships Among the NTS Study Objectives and Data Sources

METHOD	DESCRIPTION	DATA SOURCE
OMB-Approved Instrumentation		
Project Director Questionnaire (PDQ)*	A 39-item questionnaire that collects information about contextual, project and SEA dissemination system characteristics.	Cohort I-III project directors Non-SCBP state dissemination leadership representatives Cohort IV-V SCB project directors
Capacity Building Indicants (CBI)*	A survey instrument that collects assessments about the status of the SEA dissemination system.	Cohort I-III project directors Non-SCBP state dissemination leadership representatives Cohort IV-V project directors
Project Director Interview Guide (PDIG)*	A 17-item instrument that collects information about NIE/SEA interactions, contextual, project and SEA dissemination system characteristics.	Project directors
Client Assessment Package (CAP)	A set of five machine-readable instruments developed by NTS to record the process of seeking and using information and assistance for educational improvement. Forms include a Service Form, Process Form, Linker Form, Immediate Feedback Form, and Client Assessment Form.	Volunteering SCBP states**
NIE Program Personnel Interviews	Interviews with NIE Program Personnel.	NIE Program Officers

*Instrumentation was mailed (with telephone follow-up) to all Cohort I-III States (n=29), Cohort IV-V States (n=14) and all non-SCBP states (n=14)

**Fourteen (14) states returned forms to NTS for processing.

FIGURE 3.4 A Summary of Data Collection Methods and Data Sources Used in the Study of the State Capacity Building Program (SCBP).

METHOD	DESCRIPTION	DATA SOURCE
Document Review		
Capacity Building Project Document Review	File review of funded capacity building grant applications and continuation proposals using document review protocol.	137 source documents: Cohort I (9x5=45) Cohort II (14x4=56) Cohort III (6x3=18) Cohort IV (4x2=8) Cohort V (10x1=10)
Case Materials	Review of descriptive reports previously prepared by NTS Research Corporation.	3 source documents: 1976 State Reports (n=9) 1977 State Abstracts (n=21) 1978 State Abstracts (n=29)
NIE Program Document Review	File review of non-funded capacity building grant applications, grant negotiation documents, sample of special purpose grants, and program announcements.	7 source documents.
Policy Statement Review	Review and analysis of Federal and state policy statements dealing with dissemination.	SEA policy statements for 1979-80 year and 1975-76 year, if obtainable. CCSSO policy statements for 1975-80.
Statistical Data	Collection of appropriate statistical data regarding state and SEA contextual characteristics.	National Center for Educational Statistics (NCES) and Council of Chief State School Officer (CCSSO) Statistical Information.
Project Directors Expressed Needs	A comparison of needs expressed by project directors in 1979 and 1980.	2 source documents.

FIGURE 3.4(cont.) A Summary of Data Collection Methods and Data Sources Used in the Study of the State Capacity Building Program (SCBP).

Scope and Limitations of the Evaluation

When evaluating the effects of a program, a study should compare a system, or capacity, before the project existed to the effects of the project after a particular point in time. The NTS study to evaluate the SCBP was funded approximately one and a half years after the Cohort I projects were in operation; therefore, a limited amount of baseline data were available. As an attempt to overcome this limitation, we collected data from a variety of states. Administering the instruments to Cohorts I-III at two points in time provided a limited look at changes in projects and systems over time; collecting data from Cohort IV and V states allowed us to examine capacity building at its early stages; and, the analysis of non-SCBP states allowed us to compare the SEA dissemination systems of SCBP-funded states with the systems of non-SCBP funded states.

The purpose of this study was not to evaluate the success of specific capacity building projects, but rather to identify factors which facilitate or impede SEA efforts to build and institutionalize state dissemination systems. Our analyses are intended to develop an understanding of how Federal and state policy might promote capacity building for this Program and for future capacity building programs.

As in any evaluation of an on-going program, unanticipated internal or external events may affect some study findings. For example, a reorganization within NIE coincided with the Fall 1978 data collection period; there was a turnover of NIE staff who supervised the NTS study; and, there have been changes in Program emphases since the start of the NTS study. Therefore, it is possible that some of the findings concerning the role of NIE in the development of state dissemination capacity may have been influenced by these events. Where appropriate, such unanticipated events are addressed in this report.

An Overview of the Study Approach

To meet the study's four basic objectives, we organized our approach in a way we felt would best tell the story of SEA efforts to design, implement, and institutionalize state dissemination systems. First, we take an indepth look at how five states -- in different contexts and at different stages of dissemination system development -- have used NIE's leverage SCBP money to build and institutionalize dissemination capacity. The five state analysis highlights factors which facilitate and impede state capacity building efforts. From the dynamic, microcosmic examination of five states' experiences, we expand our investigation to all states, describing the components and facets of dissemination capacity which have been built by SCBP states, looking at changes which have occurred in this capacity over time, and comparing the capacity of SCBP states with that of non-SCBP states. At this point in the story, our goal is to move beyond description and examine how contextual and project characteristics influence the development of state dissemination systems. Following this description and explanation of "what's out there," that is, the capacity building projects and state dissemination systems, we look at the Program from the Federal level. We review NIE's management of the SCBP and its operational procedures and examine how these relate to operations at the state level. Finally, from the findings which emerge throughout the story, we synthesize a cohesive set of conclusions and recommendations that may help to improve the SCBP, as well as future capacity building programs.

FOOTNOTES

[3.1] We have selected the term intermediate educational agency (IEA) in order to maintain consistency in abbreviations across levels (i.e., SEA, IEA, LEA). Intermediate education agencies are defined, generically as other public education agencies within a state which provide educational services or regulate the educational activities of two or more local education agencies. Other terms for such units include regional education service agencies (RESAs), educational service centers (ESCs), intermediate units (IUs), intermediate service agencies (ISAs), regional units, regional SEA branches, county offices, and LEA cooperatives which are comprised of two or more LEAs. Some of the above terms are interchangeable; others represent a distinct kind of intermediate structure. For a more detailed treatment of intermediate education agencies and other regional structures, see Stephens, 1980; Madey, Haenn, and Strang, 1979; and Paul, 1978.

4

FIVE STATES DEVELOP DISSEMINATION CAPACITY

In this chapter, we look intensively at five states and the actions they have taken to build and institutionalize their capacity for a dissemination system. This examination has a two-fold purpose. First, the in-depth look at five states provides a dynamic perspective of the capacity building effort and its results. In this way, the more static description of the larger set of states presented in Chapter V will become more meaningful. Second, the intensive examination of these five states will allow us to isolate factors which may be significant in our understanding of dissemination capacity and dissemination activities. The specification of these factors will assist in examining the differences among the states in the Program, a task we undertake also in Chapter V.

We organize the presentation of information from the five states around basic elements contained in the NIE Program. These elements, which provided a framework for state activities, are:

- Resource Base
- Linker Structure and Activities
- Leadership
- Institutionalization
- Equal Educational Opportunity and School Improvement

The information was gained through site visits to five states: Illinois, Kansas, Michigan, Rhode Island, and Texas. During the site visits, interviews were conducted with SCBP staff, senior SEA administrators, and SEA staff from a variety of programs and service units. Additional sources of information for these analyses included a review of annual proposals and quarterly reports; an examination of project products and documentation; and a study of SEA materials and LEA evaluation reports.

Resource Base

The Program announcement states that the function of the resource base is "to provide ready access to users of all knowledge resources available in the state, including information files, documents, data, information and programs, practices, services and human resources (subject matter specialists). Those resources may be assembled in one place or they may be dispersed."[4.1] In describing the resource base of the five case study states, the pre-SCBP resource base capacity of each of the five SEAs is briefly summarized first. Then, each state's approach to the resource base is examined. Finally, the extent to which resource base capacity has been developed and the factors which seem to influence that development across the five states are summarized.

Resource Base Capacity Prior to SCBP

The five states differ substantially in the resource base capacity that existed prior to the SCBP. Three of the SEAs (Texas, Rhode Island, and Kansas) had been involved in several general capacity building efforts prior to the SCBP, and had developed resources (primarily national data bases) which were accessible to the educational community. The other two SEAs (Michigan and Illinois) had been involved in relatively few general capacity building efforts. One of those states (Michigan) had a fairly comprehensive set of resources available through its state library (an administrative part of the SEA), but the other SEA (Illinois) had only a limited set of resources available to its constituency, even though its state library system (not a part of the SEA) had a sophisticated set of resources.

The involvement of the Texas SEA in previous general capacity building efforts, and particularly the availability of an Office of Education (OE) teacher center grant led to the development of the Texas Information System (TIS) in which bibliographic materials were available from ERIC. The system was developed initially to serve teachers and others involved in teacher center activities. When TIS was separated from the teacher center operation in 1974, its services became more widely available to educators throughout the state. At this time, funding for TIS was continued by the second generation pilot state dissemination program. When this funding ended in 1975, the SEA provided support for continued maintenance of TIS. In addition to TIS, the SEA had a resource center library for use by SEA staff and a separate library within the SEA containing occupational education materials for use by both SEA staff and educators throughout the state. Still another storage and retrieval system for special education was located at the University of Texas in Austin. When Texas received its SCBP grant, TIS was expanded and renamed the Coordinating Information for Texas Educators (CITE) Resource Center.

Like Texas, Rhode Island's resource base activities prior to the SCBP were in part driven by funds received from an OE teacher center grant. Rhode Island used a portion of its teacher center grant to develop an Education Information Center (EIC). The EIC contained ERIC as well as other computerized data bases, fugitive documents, and a microfiche collection. As in the Texas case, funding for the EIC was continued using the second generation pilot program monies, and then SEA monies. The EIC was renamed Educational Information Services (EIS) when its operations were transferred to state funding. When Rhode Island received its capacity building grant, the EIS became the resource base for the project.

In Kansas, ERIC and other national data bases were available to the education community prior to the SCBP grant. Like Texas and Rhode Island, Kansas received funding under the second generation pilot dissemination program and used this money to involve 12 LEAs in developing the beginnings of its state information files, files which came to be known as KEDDS/Resources, the information resources component of the Kansas Education Dissemination/Diffusion System.

Prior to the NIE capacity building grant award, Michigan had not participated in any collaborative state efforts or Federal grant programs focusing on dissemination activity; as a consequence, the SEA was first awarded a special purpose grant for one year of planning. However, many of the national data bases were available through the Michigan state library and several of the larger intermediate school districts, particularly those in the Detroit metropolitan area. The Michigan state library, which administratively was a division of the SEA, also had a substantial collection of education documents including SEA and LEA materials available on an interlibrary loan basis to all educators in the state. The largest intermediate school districts made their collections of documents and materials available to their respective LEAs. In addition, many of the individual program areas in the SEA had independent dissemination efforts, some extremely complex, which involved considerable time of SEA field consultants for reference and maintenance activities. The state also had 22 regional educational media centers (REMCs) which focused on accessing information and developing instructional materials. When the SCBP grant was awarded, the SEA enhanced the resource capabilities of the already-functioning Michigan library system by operating an Information Dissemination Service Center (IDSC) from the state library.

Of the five states visited, Illinois probably had the least developed SEA resource base capacity prior to the SCBP. A reference service for SEA staff was available, and included limited ERIC searches as well as a collection of educational journals, SEA publications, and general reference materials. In addition, there were particularly strong occupational and special education information systems available through the SEA. The state had a sophisticated library system and had developed PLATO, a computerized method to access national files, but unlike Michigan, the Illinois state library system was not a part of the SEA. Basically, however, from the perspective of a systematic information capacity and in terms of the focus on the needs of LEAs, the development of a systematic and comprehensive information system in Illinois began with the SCBP; that information system is known as the Illinois Resource Dissemination Network (IRDN).

Approaches to Developing the Resource Base

The five SEAs approached the development of their resource bases in different ways and placed different emphases on the development of resource base capacity in relation to other components required by the NIE grant. This discussion of the approaches to developing the resource base in each of the five states considers three aspects of the information systems: (1) the target client strategy employed, (2) the comprehensiveness of the resource base, and (3) the nature and quality of the services provided.

Target Client Strategies. The NIE Program does not operationally define "clients," "clientele" or "client group." In the program announcements likely synonyms for the concept appear in similar contexts and include "SEA constituents," "all educators," "users in the state," "practitioners," "all participants in the educational enterprise," and "knowledge users."[4.2] The lack of a standard operational definition for clients was purposeful, since NIE recognized the diversity which exists among states, SEAs, and their constituents. A range of client definitions is evident among the five case study states.

The clients to whom resource base activities were targeted during the SCBP differed in terms of the relative attention given to teachers and LEA officials compared to SEA staff. Since each of the five states had as an ultimate objective meeting the information needs of local educators, the differences observed among the five are probably appropriately regarded as implementation strategies rather than definitive models of how resource base activities should be organized. As implementation strategies, the different clients targeted for attention in each state were very much a function of the resource base capacity prior to the SCBP grant, and also the SEA's overall approach to school improvement.

In Kansas and Texas, pre-SCBP resource base activities focused on teachers and principals, and project activities have continued that focus. The emphasis in these two states has been to get information about sources and materials to local educators. In Texas, little attention is specifically targeted to serving the information needs of SEA program staff by means of the capacity building project; the SEA Resource Library, which now includes the special education materials, serves SEA staff. The Texas project is designed to complement other SEA activities in the school improvement process. In Kansas, the SCBP functions almost as an independent entity within the SEA. As such, it appears to compensate for "a relatively conservative state... where innovation appear(s) foreign to the way things are done."[4.3] Therefore, KEDDS defines its mission as providing services to LEAs and schools.

Rhode Island and Illinois have targeted a different set of clients. Their resource base not only serves LEA staff but also SEA staff within the context of helping local educators make choices among available alternatives. In both states, the projects complement other SEA school improvement activities.

In Rhode Island, the resource base primarily serves LEA staff through the Program Development Consultants (PDCs) who are the designated SEA-based linkers. The PDCs, who function as "generalists," need the resource base materials to meet specific LEA information requests. The resource base also serves other SEA staff directly and higher education personnel. Approximately 60 percent of the resource base services are directed towards LEA staff; the remaining services are about equally divided between SEA staff and higher education personnel.

The Illinois approach is patterned after that of Rhode Island. (In fact, a person with significant responsibility for Rhode Island's program design subsequently moved to Illinois where he helped institute similar changes on a larger scale.) In Illinois, the SCBP grant was used to develop a resource base (the Illinois Resource Dissemination Network) to serve local school districts through the SEA linkers (Program Service Teams).

Michigan utilized still another approach, focusing primarily on the offices and service areas of the SEA. Michigan selected a "filter-down" strategy in which the emphasis during the first year of the SCBP grant was on meeting the information needs of SEA staff in all project and content areas, as well as getting information from those staff into a coordinated information system; regional and intermediate unit staff were addressed in the second year; and in the third year, the primary focus was on LEA staff. The intent was to develop large cadres of individuals at the upper levels of Michigan's education system who would be both users of the resource base and also linkers between the resource base and LEA staff. To accomplish this, the project has developed a written procedures manual for accessing the various specialized dissemination networks.

The differences in emphases with respect to primary target clients seem to be important for two reasons. First, the more the initial focus on serving LEA staff, the less project activities have addressed the development of a comprehensive resource base, particularly in terms of coordinating documents and materials from a range of program areas within the SEA. Second, where at least the initial focus was on meeting the needs of SEA staff, and where the resources available were limited or uncoordinated (as in Illinois and Michigan), SCBP funds were devoted to developing and improving the mechanics of resource base capacity.

Comprehensiveness of the Resource Base. The NIE Program announcement states that knowledge resources may include "information files, documents, data, information and programs, practices, services and human resources."[4.4] Data bases are groupings of knowledge resources such as ERIC, Psychological Abstracts and Exceptional Child Educational Resources. Resources may be assembled in one place or dispersed, and data bases may be searched manually or by computer. The types of information included in the resource base and the organization of that resource base varies among the five states. Table 4.1 compares the information capacity of the five states as of the 1979-80 school year.

Each of the five states had immediate access to a number of national information systems such as ERIC. Michigan provided access to the national

TABLE 4.1 A COMPARISON OF FIVE STATES' RESOURCE BASES AS OF 1979-80

	STATES				
Information Type	Illinois	Kansas	Michigan	Rhode Island	Texas
National Files	Automated*	Automated	Automated	Automated	Automated
State Documents	Developing* Automated	Manual	Automated*	Manual	Manual
Local Documents	Developing* Automated	Manual	Automated*	Manual	Manual
Validated Programs	Automated*	Manual	Limited* Automated	Limited Manual	Some Automated** Manual*
Other Promising Programs	Automated*	Manual*	------	Limited Manual	Manual*
Human Resources	Automated*	Manual	Automated*	------	------
Fugitive Materials	Developing* Automated	Manual	Automated*	Manual	Manual
Prepackaged Information	Automated* Manual*	Manual*	Automated*	Manual*	Manual
Multi-Media Materials	Yes	------	------	Yes*	Yes

*Developed during SCBP

**Automated access to validated programs as part of the pilot of the national practice file.

data bases through regional or intermediate school districts. In Kansas, national data bases are accessible in the eight regional libraries. In the remaining three states, access is primarily through the SEA. In terms of the resource base capacity developed under the SCBP, what really distinguishes the states is the extent to which state and local documents, promising practices, and human resources have been incorporated into a state file or files.

Four of the states have focused some of their capacity building efforts on developing state-specific files or state-specific data bases: Illinois, Michigan, Texas, and Kansas. To date, the Illinois Resource File (IRF) includes four state databases: promising programs, human resources, state-published and local district documents, and demographic data for making enrollment projections. There are plans to develop two more during the project's final year: school policies and legal opinions cross-referenced by state school codes. An automated search process is used to obtain information from the IRF. Michigan, too, has automated its state files, which include state and local documents, human resources and a few promising practices. Texas and Kansas have not yet automated their state files, but have developed their files with automation in mind. Texas has a fugitive documents file and a program/practices file containing over 500 descriptions of exemplary LEA programs. Texas does not have a human resource file, but such information can be provided since most information requests of CITE flow through a personal contact in Texas' intermediate units. Kansas has developed three manual state files: (a) a practices file with about 400 entries, (2) a documents file which contains information about publications and audiovisuals, and (3) a human resource file.

In contrast, Rhode Island has used relatively little SCBP funds to expand the resource base component. However, state funds have been used to update existing manual files and to add topics of priority (e.g., needs asessment, teacher evaluation) to the existing resource base.

To one degree or another, all of the states have been engaged in producing annotated bibliographies, information packages, and newsletters. The products associated with the dissemination system include special listings of materials and documents grouped by topic areas, annotated bibliographies, newsletters, films, and audio-visual materials. Such products are intended to promote either awareness about resources and services, and about activities available from the SEA, or to summarize the most useful and most often requested documents and materials in a particular topic area. Thus, such products may serve either as another type of information included in the resource base or else as a way to promote client access to the resource base.

Among the five states, two (Michigan and Illinois) have developed products to increase the efficiency of the system in responding to requests. Michigan produces a batch listing of every state item and document in the system, and distributes this listing under the title "Michigan Educational Resources" (MER) to SEA, intermediate school district, and REMC staff. In essence, MER is a computerized inventory of fugitive documents, education projects, and human resources available to educators. Since these staffs have the "hard copy" MER, many information "searches" are addressed through the hard copy without submitting a search request to the centralized state library. By the spring of 1980, the MER will be produced totally on microfiche, but the same "search" strategy will apply. The long-run objective in Michigan is to make the computer information system interactive so that it can be accessed either centrally or in any of the intermediate school districts and in the larger school districts of the state.

Illinois maintains types of search strategies which can be played back whenever another search for the same information is requested. Any tape playback includes an automatic update of resouces available by the commercial vendor. This means that the search request can be honored within a day or two compared to the two to four weeks needed to turn around a request using the computer search procedures. All Program Service Teams have a list of those searches, called "duplicate searches," which can be obtained more rapidly.

Unlike Michigan and Illinois, the other three states do not have lists of "available" or "quick" searches for use by linkers in meeting client requests. However, these states have developed other techniques to speed up the search process. For example, in Texas the CITE resource center keeps copies of the effective search strategies (the "hits") to increase efficiency in running similar searches. But CITE views the customized search as the cornerstone of its service and does not push "duplicative" searches. As another example, Rhode Island maintains copies of all search strategies and uses client feedback as one basis for modifying ineffective strategies.

All five states have capabilities in the multi-media area, but Rhode Island is the only one to use SCBP funds to develop media materials. Such materials are viewed as a way to increase the quality of SEA consultant interactions with the field and are often produced to assist SEA staff preparing workshops and other types of presentations. A Title I staff member provided a good example of the kind of contribution the Rhode Island capacity building project had provided for other SEA program staff members:

> Last year, a Title I staff member completed a longitudinal study concerning sustained effects in achievement gains for Title I students. The Board wanted further information on the study results to tie in with the next year's annual report and to present to the upcoming Parent Regional Conference. He turned to

> the dissemination unit to help him in the presentation that would need to be clarified for a lay population and compelling enough for the audience to sit through without interrupting. The result was a slide-tape show, developed as a collaborative effort with the communication and dissemination specialist, that was highly successful in accomplishing its goals. The Board has requested that the presentation be used again.[4.5]

Rhode Island has also used SCBP funds in other ways to enhance the quality of SEA consultant interactions with the field. These include technical assistance to SEA staff in developing written communications (e.g., brochures, reports, posters), providing communications training, assisting with conference planning and delivery, and designing dissemination strategies.

In Texas, the print shop (including graphics, slides, transparencies) and the SCBP project were in the same office (the Division of Dissemination), until the division's director retired. Now coordination between the print shop and the project is achieved by having both offices report to the same associate commissioner. Such coordination between information and other types of media is more limited in Illinois, Kansas, and Michigan.

Service Issues. The third aspect of each SEA's approach to developing a resource base focuses on the nature and quality of services provided. How SEAs provide information for the client varies along three dimensions: (1) accessing the resource base, (2) making information available for clients use, and (3) turn-around time associated with the process.

Accessing the Resource Base. The information resource base can be accessed by multiple channels in some states but only through a preferred group of linkers in other states. Potential clients in Kansas and Texas will be steered to "their linker" in virtually all cases no matter where the request is initiated. Those linkers then will place the request with the "information system operator." In Michigan, potential clients can get assistance from intermediate school district, regional education media center, or

SEA staff in both specialized and generalized information networks, or they telephone to the state library where a trained information specialist/linker will, help the client define and negotiate the search request. If the client wants additional assistance, he/she can again contact the intermediate, regional, or SEA-level staff person for that assistance. In Illinois and Rhode Island, requests for information may either flow through the linkers or be made directly to the resource base. In Rhode Island, the system was originally set up so that almost every request for an information package was delivered to the client by a Program Development Consultant, and follow-up services were provided. In this way, the linker was ready to bring other process skills such as needs assessment and project development to the client. However, the recent depletion of Program Development Unit staff meant many clients contacted the resource base (EIS) directly. The EIS information specialist expressed a preference for being able to negotiate a request with a client directly; but the program development consultants indicated a similar preference for being able to negotiate requests directly with clients.[4.6]

The rationale for having all requests go through a linker, and for having the request distributed to the client by the linker, is based on the assumption that all clients need more help than can be provided over the telephone in defining requests, in interpreting the materials that are sent out, and in thinking about next steps. Thus, those resource bases that are closely associated within the SCBP in an overall change-agent conception represent less direct access to the information system than do the procedures in those states where the project's primary focus is on the resource base itself. We do not know whether these differences in accessibility are important for potential clients, or for system cost-efficiency and cost-effectiveness. For example, to what extent does the requirement that a request go through a linker rather than through a resource base information specialist discourage potential clients from entering the system? To what extent do those who enter the system through the change-agent/linker actually need or want more information and assistance than the information specialist provides? And, under an open access system, are some clients who do need help in interpreting data and defining next steps not getting the help that they need? These differences in accessibility represent what we think are important structural and operational distinctions between resource base approaches.

Making Information Available for Client's Use. The five states differ substantially in the extent to which the resource base activities assist the client in obtaining documents and materials for his or her review. This is probably less of a concern with the national data bases, particularly ERIC, where a number of public and university libraries have access to ERIC microfiches. It is a far greater concern with national documents that are not on microfiche and, in particular, with state and local documents and materials.

Michigan uses a two-step process to provide the client with access to documents and materials as well as information searches. The Michigan effort, of course, is facilitated by location of the project in the state library that has long been involved in lending out state and local educational documents. Following the search in Michigan, the client or his linker, can put in a second request to the state library system for the desired documents -- books, fugitive documents, state publication, program descriptions

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or microfiches. Like the initial information search request, requests for materials and documents can be placed by telephone or by telecopier. And like the search request, the materials will be available in two-three days on a inter-library loan basis.

The contents of the initial package an Illinois client receives may either be just a computerized set of references (and thus similar to Michigan's initial search) or else contain a variety of materials (e.g., references, journal articles, microfiche). With respect to state and local documents, Illinois is attempting the inter-library approach, largely because the SEA had, prior to the SCBP, an operating resource center where such documents could be checked out. This resource center is currently operated by the SEA but there is the expectation that it will be moved to the state library to function more like Michigan's.

In the three remaining states, the initial response is likely to contain a greater variety of materials than in the Michigan case. The client may request additional follow-up materials from the information resource base, or else obtain the materials and documents from another source.

Turn-around time. Two states (Kansas and Texas) report a two-to-three week turn-around time to process information search requests and provide materials to clients once those requests are received by the project. Illinois can provide clients with computer searches within a week of request receipt. For materials provision, however, Illinois's turn-around time during the 1980-81 school year has been closer to three-to-four weeks, but before the end of the school year the SEA expects to lower that to under two-weeks. Rhode Island also reports a turn-around time of under two weeks. Michigan is clearly the exemplar in terms of turn-around time. When requests are received at the state library by telephone, letter, or telecopier (from the intermediate school districts), the computer search is usually handled overnight and the response is in the mail within two-to-three days. In its most expeditious form, this means that a potential client could meet with a program specialist or general information linker at an intermediate school district, send the request to the state library by telecopier at the conclusion of the meeting, and have a computer listing of national data files, state documents and materials, validated programs, and human resources within just a couple of days. And, if upon receiving the listing of references, the Michigan client decided some documents were desired, another telephone or telecopier request could be made to the state library and those documents would be in the mail within another two-to-three days.

Increasing Resource Base Capacity Under the SCBP

In the five states studied it is clear that there were substantial differences in resource base capacity before the SCBP grant and that states made varying commitments to develop resource base capacity under the SCBP grant.

If attention to and concern with resource base components of dissemination systems is an indicator of where these five states were before the SCBP, then Texas, Rhode Island, and Kansas could be judged to have had the most pre-grant resource base capacity. All three of these states had prior Federal grants that focused on the development of comprehensive information dissemination programs; access to a variety of information sources was an important element in each of those grants. Because of a number of independent activities within individual program areas and in some intermediate school districts, there was a good deal of capacity in Michigan, but it clearly was disparate and uncoordinated. Indeed from a potential user's standpoint, if one sought information through a particular program area and that information were not available, it was unlikely that information could be obtained from either other sources within an intermediate district or the Michigan SEA itself. Of the five SEAs, Illinois started with the least amount of resource base capacity.

Where are the states now and what can the information gained from the site visits lend to our understanding of the process of building capacity? Since Illinois and Michigan seem to hold quite similar visions of what they would like their resource bases to be like when fully implemented, the differences in current capacity can be illustrative of some of those factors that seem to affect resource base capacity building. These factors will be approached by addressing the following question: since Illinois and Michigan had similar goals and each devoted virtually the entire SCBP grant to resource base development, why does current capacity in the two states differ?

Michigan had more initial capacity in resource base-oriented information dissemination activities than did Illinois before the start of either project. Many individual program areas in Michigan had well developed manual dissemination mechanisms, though these were programmatically independent and uncoordinated. Such systems, particularly in special education, compensatory education and bilingual education, exceeded efforts in Illinois to make information available to local educators. In addition, the Michigan state library was under the auspices of the SEA and was actively involved in interlibrary loan activities. Items that were available for loan included many SEA and LEA documents and instructional materials. Illinois' document distribution system served as a reference library for SEA personnel, not as a resource for LEAs. Even in the area of national data bases, accessibility was more extensive in Michigan, both at the state level and in many of the intermediate school districts, than appears to be the case in Illinois. Michigan has operational regional education media centers geared toward dissemination activities while Illinois does not. Finally, Illinois does not have intermediate school districts that cut across service areas and that have information dissemination functions.

Differences between the two states in initial capacity also may result from an important contextual variation. Compared with most SEAs, Michigan has a long history of active and assertive interactions with local school districts -- the SEA will intervene in certain situations for program improvement purposes. Illinois, in contrast, is predisposed to a posture of working with local school districts only when requested to help. The result is that the Michigan SEA has over the past 10-15 years devoted considerable attention to developing workable tools for intervening with LEAs.

Strategic differences during the SCBP also should be noted. The mission of the project in Michigan was to provide service to existing activities which were seen as a part of a broader effort at educational improvement. The project leadership in Michigan included a highly skilled bureaucratic entrepreneur who was particularly effective in dealing with Michigan's first line of clients -- SEA staff in other programmatic areas. Illinois also had effective project management, but project activities were more oriented to a new conception of the SEA's relationship with LEAs and a new approach to program improvement. Because in Illinois the resource base served as an innovative effort to generate program improvement, project staff did not see themselves as having to "generate business" for their services. As a result problems in turn-around time or access to documents did not need to be treated with the same high priority as was the case in Michigan, where dissemination project staff saw themselves as needing to create demands for services and then needing to respond to those demands in a way that kept requests for services coming. The same degree of creating credibility was not needed in Illinois. In Michigan, the project built upon the greater initial capacity to fine-tune their information system. In Illinois, the project built an information system, essentially from scratch. These differences in initial capacity, context, and strategies may illustrate why the two states have reached different stages of development in their current resource base capacity.

But what about the other three states? In Texas and Kansas, the resource base capacity started high and remained high, but the approach to providing services is different from the library system approach that seems to exist in both Illinois and Michigan. In Texas and Kansas, resources of the SCBP, then, as well as the energies of project staff, were devoted to a range of dissemination concerns in addition to the resource base. In Rhode Island, few federal funds were directed to capacity building in the resource base area under the SCBP. In fact, the Rhode Island project prides itself on having had an "institutionalized" resource base prior to the NIE grant award, though the conception of a resource base was, at best, modest. A major project activity was the establishment of product development and multi-media services, services which were viewed more as increasing the quality of available linkages than as increasing the capabilities of the resource base.

One major conclusion seems appropriate about capacity building of the resource base in these five states: the resource base capacity built under the SCBP grant seems to be directly related to the amount of emphasis that was placed on capacity building in this area. Michigan and Illinois accomplished the most because they gave the greatest attention to the resource base in their respective projects. Kansas and Texas balanced resource base development with other dissemination concerns. Rhode Island seems to have given less attention to resource base capacity building, and the Rhode Island resource base in 1979-80 is still structured as it was before the project started. Within that existing structure, however, expansion has occurred primarily using state funds.

Linking Clients and the Resource Base: Linker Structures and Activities

The previous section discussed how the resource base was developed in each of the five sites. Once a resource base has been put in place, however, a comparable system is needed to link clients with the resource base so that relevant information can be obtained and used. In dissemination literature and practice this function is performed by "linkers." Linkers are those persons who help clients to find information (i.e., access the resource base) and who assist clients in the use of that information. While everyone, at times, helps someone else find and use information and is therefore engaged in "linking activities," the term "linker" in this report means a person designated by the SEA dissemination system either to help clients find information through the resource base or to use information to improve educational practice or both. In this section we examine the linker-structure capacity prior to the receipt of the capacity building grant, each state's approach to the development of that structure, and finally models of linkers structures.

Linker Capacity Prior to the SCBP

Prior to the SCBP grant award, each of the states had a structure through which linkers could perform their functions. (Parenthetically we might note that only two states of all those awarded SCBP grants created linker systems, de novo). Kansas, Rhode Island, and Texas had designated linkers who had been functioning within an existing structure and philosophy before the grant award. In Texas, linkers were designated within intermediate educational agencies (called Regional Educational Service Centers) to serve as contacts during specific dissemination efforts. In 1972, linkers were established in six Texas centers as part of a pilot program. These linkers assisted clients to specify their problems in order to identify the information needed for the solution of those problems, and assisted, as well, in the client's use of the information provided. With the receipt of the SCBP grant, linkers were established in all twenty regional centers. In Kansas, linkers supporting the adoption of innovative instructional practices in Kansas classrooms had been in operation since 1971. These linkers were characterized as "change-agents," a role close to the agricultural extension agent model which included both helping clients access and use information.

Rhode Island also had a cadre of linkers each of whom was assigned to a region within the state; they were to serve as linker, advocate, and helper. Supported by state funding, the linkers provided technical assistance in needs assessment, project development, program planning, and curriculum development, as well as negotiating information requests and organizing in-service training. The basic difference between Kansas, Texas, and Rhode Island was, and continues to be, that Kansas linkers provide assistance in the actual implementation of school improvements, while the linkers designated by the capacity building projects in Texas and Rhode Island do not.

The remaining two states, Michigan and Illinois, did not have established linkers before the SCBP grant was awarded, but they did have the structures which served as vehicles for the development of the linker system. In Michigan, the intermediate education agency served as the vehicle for linking activities. In Illinois, the vehicle was found in a major division of the SEA, the Program Service Division, which had been charged with the provision of services to LEAs. Of all the five states, Illinois was initially probably least organized to provide the basis for linker activities.

Development of Linker Roles and Structures

Given the prior structures within these states, we now present the structure through which the resource base is linked to the clients. Before presenting these structures, however, we discuss definitions of the linker role.

Definitions. The breadth of the conception of possible linker roles is embodied in the definition of dissemination activities as expounded by DAG (1977). These activities are:

- Spread (i.e., making the service known to clients)
- Exchange (i.e., helping the client to specify the problem, making the appropriate request for information to the resource base, and getting the information to the client. It includes, also, any further specifications by the client for information)
- Choice (i.e., assisting the client to assess the information and to make a choice regarding which information would be most appropriate to deal with the problem)
- Implementation (i.e., given a client decision on using information to bring about a change, to provide assistance to the client in that change process).[4.7]

It is obvious to those knowledgeable about the education system within states that the separate functions are performed by various SEA units and personnel in the state. For example, both a vocational education specialist and a handicapped education specialist in an SEA can help a teacher to get information about a new program, can work with the teacher to make decisions about the best alternatives to serve the need, and can work with the teacher and the school to get a new program operating. Similar divisions of labor are often reflected at the intermediate and local levels. Thus, linker activities can be performed by many at the SEA, IEA, and LEA levels. Therefore, in a very real sense, many SEA personnel could be considered to be "linkers." However, the NIE Program approach speaks to the development of a procedure for linking the client to the information resources. While NIE has fostered variation in the approaches taken by the states to linking, the strategy taken in the program announcement calls for a formal structure of linking, that is, a designation of the persons and processes to link information and the client.

We are faced, therefore, with a dilemma, and we believe, that NIE and the "field" are faced with the same dilemma. Namely, if one defines linkers by the performance of one or more of the DAG definitions, "the types of linkers" within a state could be myriad, and the behavior that we may wish to be embodied in the term, relatively meaningless. If one takes a "linker" to be only those designated by a state, the representation of those persons performing linking activities could be severely misrepresented. For example, Kansas has 9 project-designated linkers, Texas has 20 and Illinois has 75. Common sense would cause us to question what those numbers represent in terms of size of the school populations in each of these states and the activities in the states with regard to school improvement.

Part of the problem, it appears to us, is the wide range of activities which can be embraced by the term "linker." In each of the five states studied, the "linkers" so designated have in common the fact that they at least perform an information transmitting or connecting function; they do connect the client with the resource base. The linkers in the five states do not necessarily get involved in implementation activities. For example, in Kansas the linkers are involved in implementation; in Illinois they are not. In Texas, the designated linkers are the contacts in the intermediate units who are responsible for contacting the resource base and they may be involved in implementation activities, but the hundreds of other employees in the intermediate units are also involved in implementation assistance. These personnel are not designated as "linkers," but they perform, at least, assistance with implementation often based upon informaton obtained from the resource base.

Who, then, and upon what basis, are to be recognized as "linkers?" We consider this problem to be more than of academic interest. Not only is it difficult to assess a phenomenon with poorly defined parameters, it is also difficult to develop a program to meet specific objectives with means which cannot be understood because they are not well defined. Describing and interpreting the phenomenon, and interacting about the phenomenon, becomes difficult because the question always remains, about what are we talking? In describing "linkers" in the five states we must be cognizant of the fact that the total linkage effort of the SEA dissemination system may extend beyond those linkers designated by the projects.

Linker Roles. Each of the states has designated linkers who act as the intermediaries between the resource base and the client and whose major function in this regard is to assist the client in defining the problem and in translating the problem into those terms most meaningful to query the resource base. We will describe each system starting from this basis and note differences between the states.

Kansas, Illinois, and Rhode Island are most similar in their use and definition of the linker role. In Kansas, a group of nine linkers is assigned regions within the state. Although the personnel at the resource base will handle direct requests from clients for service, the linker is the preferred route for requests. This is because the philosophy is to involve the linker in the process of problem definition so he or she can assist the client to become more proficient in problem definition and problem solving processes. The linker contacts the resource base through one of the regional libraries and delivers the resulting product to the client, sometimes with interpretations. The linker will provide any assistance desired by the client to comparatively assess program information and then provide assistance in implementing the program the client wants to start in the school. Indeed, the linker will provide continuing assistance with the new program, such as helping to train new teachers, until the program is either incorporated into the ongoing improvement effort or dropped. Kansas, therefore, has a defined cadre of linkers whose functions are to champion improvement in the schools through the use of information about education programs.

Rhode Island also has nine linkers who act as a cadre to assist educators in the state. Their functions primarily involve gathering information from the resource base and analyzing it in order to help districts interpret and use the information; technical assistance in implementation is usually provided by other members of the SEA or other "experts" identified throughout the state.

Illinois has 75 identified linkers who, like those in Rhode Island, assist local school personnel to interpret and use information for school improvement. Implementation is left to consultants in the state, usually persons outside of the SEA structure. The 75 linkers view their appropriate role in implementation as identifying the experts and making resources available to local schools for implementation assistance. These 75 linkers are members of the SEA Program Service Teams, (Service team members are program specialists assisting local school in mathematics, reading, special education, etc.) and work closely with the resource base.

In all three states, although the defined linker functions are somewhat different in terms of the depth of providing services to school districts, linkers are similar in their identification. They are viewed as a group of professionals closely identified with the the resource base and the project and also identified as a group of professionals dedicated to being more than contact persons for the clients to the resource base.

Texas has identified 20 linkers, one each in the 20 regional education service centers (ESCs). It is obvious that those 20 linkers act as the information conduit for clients (here to be understood as both local school personnel and other members of the ESC who interact with school personnel) and the resource base. All members of the ESCs provide implementation assistance, but only the contact person in the ESC acts as the intermediary to the resource base. This definition of linker role is somewhat different than in the above cases. The ESC linkers are neither members of a cadre of linkers tied closely to the resource base nor the persons primarily responsible for implementation services to local educators. This latter point becomes confusing because in reality other members of the ESCs, while not defined as linkers, make use of the resource base through the identified linkers and can be thought of as a part of the Texas dissemination system. Primary contact, however, and training in the use of information with the clients and in the use of the resource base are carried out with the 20 identified linkers.

the linkers to motivate and effect school improvement. The next section examines this issue further by looking at the structure of linker systems.

Models of Linker Structures

The variation in linker structures and functions found in the site visits is reflected to an even greater degree in the rest of the states in the SCBP. Because of such variation, it is usually difficult to discuss linkers and dissemination systems when several states are involved. However, the five states do provide a basis for the development of a classification schema. While not amenable for testing by the data in this study, such a classification scheme may prove helpful in future studies. .

Dimensions for Classification. Linker structures and functions vary along a number of key dimensions. Among these dimensions are: (1) the structural factors which "couple" linkers to the resource base, (2) the kinds of activities linkers engage in when providing information to clients, and (3) autonomy in decision making. We propose to focus upon the relationship of the linker to the resource base as reflected in organizational (i.e., structural) relationships. Based upon the information from the five sites, we have developed three models of linker-resource base relationships.

Underlying linker-resource base relationships are important issues of how closely the efforts of linkers working with clients are coordinated with the resource base. Linkers and resource base staff compose the heart of the dissemination system. Therefore, the degree to which their efforts are coordinated and the degree to which these two entities work together to create and implement a dissemination system in the state may be crucial to school improvement efforts. The models under consideration must take into account the degree to which and the manner in which these two components are

Finally, it should be mentioned that, while the identified linkers are not necessarily involved in implementation services related to all CITE search requests, these linkers handle requests on a part-time basis and receive no funds from the SCBP grant. At least 10 of the 20 linkers are also regional facilitators for the National Diffusion Network.

Michigan presents a different approach. As previously discussed, Michigan's resource base is viewed essentially as serving the needs of the SEA and the SEA intermediate units. A total of 22 linkers are identified, with two linkers based at the SEA and 20 in the intermediate units. These linkers act purely as information conduits to the resource base with little or no other relationship in terms of other functions such as interpretation or implementation services. As in Texas, others in the Michigan SEA and intermediate units utilize the identified linkers as contact persons with the resource base, if they desire. These other individuals may be thought of as part of the dissemination system since they too may request and use information to assist clients in school improvement. Although the functions of the Michigan linkers are similar to those in other states, the distinguishing characteristic is focused in their functional distance from the resource base and consequent relative isolation from the other parts of the dissemination system.

In summary, the identified linkers in these five states serve in a number of capacities but they are primarily contact persons with the resource base. The major difference appears to be the extent to which linkers (both identified and non-identified) are integrated into the dissemination system as developed by the state; that is the degree to which there is a working relationship between the resource base, the capacity building project, and "coupled," or fastened together. We suggest three models, arranged along a continuum of amount or kind of "coupling." Figure 4.1 presents the models.

In order to avoid adding to the abundance of unique words to explain social phenomena we have adapted the concept of "loose coupling." "Loose coupling" has in recent years become an important concept in organizational research since the concept is not wedded to the notion of organizational rationality. It, therefore, may be more appropriate in understanding "real world" organizational behavior. Loose coupling emphasizes that positive as well as negative results may be achieved in organizations which are not rationally integrated, that is, where there may be a high degree of functional autonomy of the parts of a system. We use the notion of system linkage, or coupling, to refer to the degree of integration between designated linkers and the resource base (which is usually, but not always, associated with the capacity building project). To simplify our labels we consider system linkages to be a continuum of integration among these two parts of the system and define the points of the continuum as "non-coupling," "loose coupling" and (naturally enough) "tight coupling" (or just, coupling).

The Non-Coupled Model. In the non-coupled model the resource base and the linkers do not have a formally defined set of relationships, other than the fact that the linkers access the resource base for the information. There is little interaction between the two units, and the resource base exists primarily as a service unit. There is probably little coordination on information problems or on the approach taken by the linkers in utilizing the information for school improvement. Linkers are usually individuals within intermediate units and act as conduits to the resource base for others in these units. Since other members of the intermediate unit are engaged in

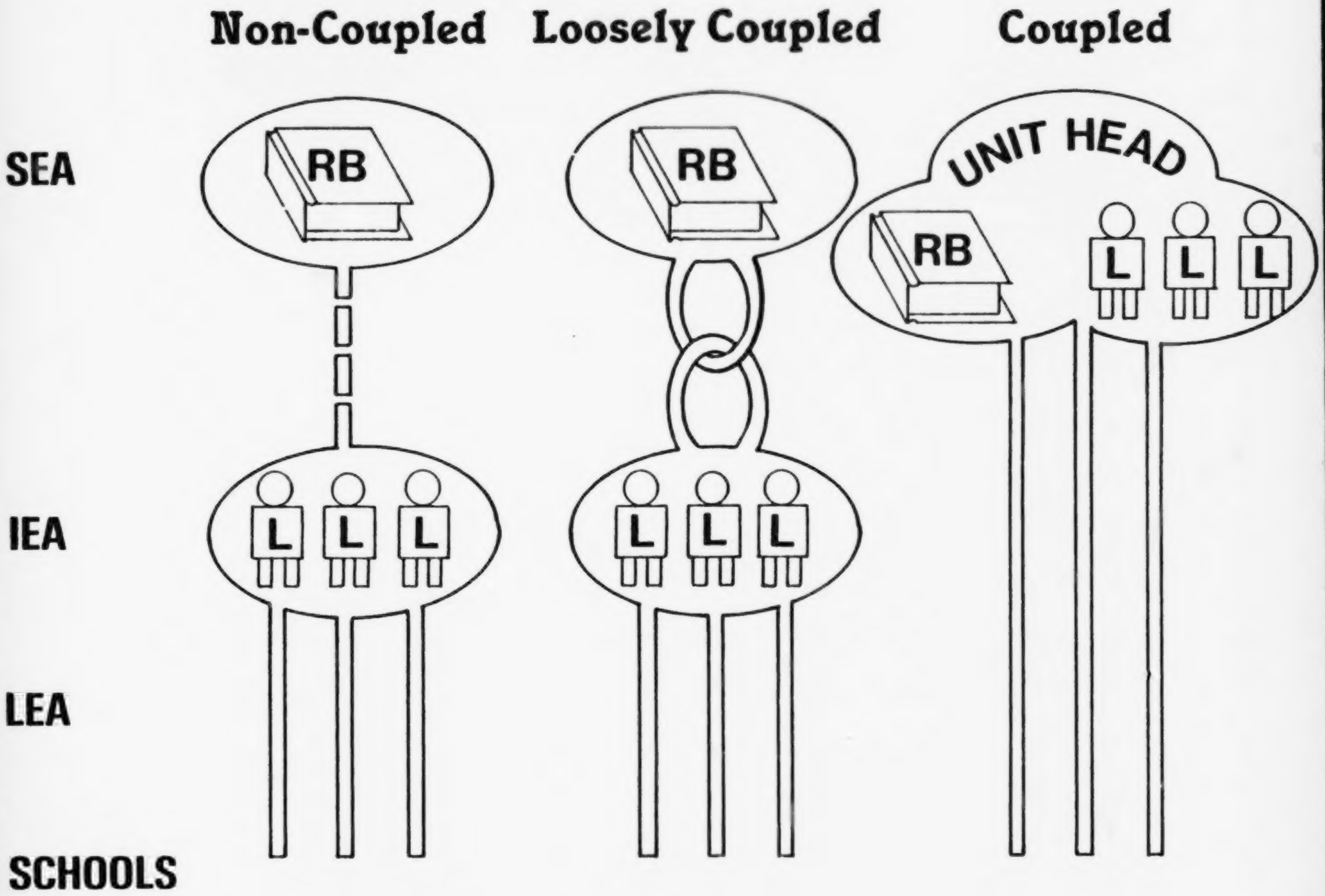

Non-Coupled
Loosely Coupled
Coupled
SEA
IEA
LEA
SCHOOLS
RB
RB
UNIT HEAD
RB
L L L
L L L
L L L

Figure 4.1 Models of Linker(L)-Resource Base(RB) Relationships

school improvement activities, there is even less coordination in the system. Michigan is an example of the non-coupled model.

The Loosely-Coupled Model. In the loosely-coupled model, there is greater coordination or cooperation between the resource base staff who are usually in the SEA and the linkers who are usually personnel of intermediate or regional education units. Linkers serve as information conduits; they act as the intermediary between clients and the resource base and as the intermediary between others in the intermediate agency and the resource base. With regard to this latter function it is important to note that the other personnel in the IEA may also be change agents, assisting schools to improve educational programs, sometimes with the assistance of information from the resource base, but they have little or no contact or coordination with the resource base. Of the five states, Texas most closely approximates this model. It should be noted, however, that in Texas the functional ties between the project director of the SCBP and the IEAs are extensive because of the director's involvement in other improvement-oriented programs with which IEA personnel are involved.

The Coupled Model. In the coupled model, linkers and the resource base (and usually the project) are integrated through the managerial structure. That is, they are housed in the same SEA unit and report to the same manager. This enforces a higher degree of integration of philosophy of change and of activities to enhance school improvement. Regular contact between the two parts of the system or at least between the heads of the two groups encourages a holistic approach to providing assistance in the school improvement effort. Three states, of the five visited, characterize the coupled model: Kansas, Rhode Island, and Illinois. Kansas and Rhode Island, in part because of their geographic size, have a more well defined integration of linkers to the resource base than does Illinois. Illinois, however, displays a structure which we interpret to be only slightly different from these other two states.

Leadership

The expressed purpose of these projects is to build the capacity within states to develop and use a dissemination system to assist in school improvement. An important ingredient of the effort to build that capacity is the leadership exerted through the project. The study of the five states has shown that the influence of project leadership is often crucial in the development of such capacity.

As we have seen, each of the five states visited had existing structures of information storage and retrieval, structures for implementing changes in school systems, and structures for the delivery of services through specialized substantive programs. The problem for any SCBP project is to organize the existing resources and to create those patterns of coordination, or at least cooperation, which are necessary to develop an effective dissemination configuration. Obtaining the cooperation of these other programs would mean also that other programs might utilize the central project resource base, thereby lending legitimacy to the existence of the project.

Each of the states visited had the rudiments of a resource base at the start of the NIE capacity building grant, so the problem was to create a more comprehensive base. This could be achieved in part by purchasing national data bases, but it required, also, the use of other resource bases existing in other programs in the SEA. To achieve the objective of the incorporation of the other programs' resource bases, the project leadership became "organizational entrepreneurs." They became, in other words, wheelers and dealers;

"artists" in persuasion, of convincing, but hardly ever able to be demanding. In some cases, they were able to convince other programs, such as special education, that the project could serve their needs for dissemination activities, and do it better and more cheaply than the programs could themselves. In each of the five states, project leadership had to achieve this cooperation or coordination on the basis of their own persuasive abilities, by offering "something for nothing." For example, since the dissemination project generally lacked "clout," one of their most telling arguments was that the project could handle requests for information regarding the particular substantive area, free of charge. Often, however, these substantive programs were unwilling (or unable) to provide the capacity project with their resource base materials. In some of these cases, coordination between the programs and the project was developed by providing for referrals of clients or requests for information from the other. In many cases, the leadership was unable to convince these other programs, most notably vocational education, to enter into cooperative or coordinative relationships.

In summary, project leadership, largely through the efforts of individuals and their entrepreneurial skills, has been able to develop extensive resource bases. But, it must be stressed that this result has been obtained without the support of explicit Federal guidelines across Federal programs. Entrepreneurial efforts could be made more effective if Federal guidelines were at least not at odds, or even better, actively fostered cooperation. For example, many of the Federally supported programs have a dissemination requirement as a part of their program guidelines. Federal programs with separate dissemination components continue the fragmentation of dissemination efforts; the NIE capacity building program supports the coordination of dissemination efforts. Federal legislation or guidelines within each of these programs which mandated, strongly supported, or urged cooperation with the state dissemination system would be of great assistance to the building of a comprehensive and coordinated system.

While it is not clear from the site visits that placement of the SCB project in a particular kind of unit (i.e., administrative, service or research) or at a particular level is critical to the success of the entrepreneur, we would suggest that this placement may have importance. Placement in an administrative unit may be important because of the ties administrative units have with other parts of the SEA and the aura of influence which sometimes surrounds such units. Service units may be even more helpful; their placement in the SEA structure allows the capacity building project to be viewed as close to the other units dealing directly with school systems. We would consider placement within a unit identified with research and planning functions to be least likely to be a position which would be of a particular assistance to these organizational entrepreneurs. Even in state agencies, researchers (and, by extension, those identified with them) may be viewed as more disruptive than helpful in delivering services to schools. Although the efforts of an individual can overcome potential negative effects of project placement, the site visits do indicate that the gaining of coordination/cooperation is assisted by the lines of ready communication and access the entrepreneurs may have to other parts of the SEA. Such access appears easier when the project leader is closer to the Chief State School Officer, and in an administrative or service unit.

Institutionalization

Each of the five states visited is either a Cohort I or a Cohort II state. Two states are in the final year of NIE funding, two into the next to last year, and one (by virtue of a late start-up) anticipates two more years of NIE funding. In all five states, the impetus is toward institutionalizing the dissemination capacity which has been developed. Institutionalization refers to whether the capacity developed by the projects is maintained and continues to develop, and the extent to which continuing costs are picked up by state funds and/or Federal funds awarded to the state in other programs (e.g., Title IV). In this section we discuss the extent to which dissemination capacity has been institutionalized, examine factors which facilitate or impede that process, and suggest where the five SEA efforts seem to be going with respect to institutionalizing dissemination systems.

Each of the states has developed a resource base, coordinated it with other programs, and developed linker structures to such a degree that there is a general awareness within each state of the project and the dissemination services provided. However, with respect to those activities which are the more "hard" indicants of acceptance of the dissemination function by the SEA, the five states vary in their accomplishments. The "harder" factors which influence the chances for the project's eventual incorporation into the SEA as a functioning part of that agency include acceptance by higher level SEA administrators, the stability of key personnel in the project or in the SEA, and the degree of congruence of the project's functions with the structure and philosophy of the SEA.

Of the five projects, two of the Cohort II states (Kansas and Michigan) face the greatest obstacles in surviving after NIE funding ceases. This should not be interpreted to mean the projects have been failures, but rather that these states may have more difficulty than the other three in attracting the resources required to maintain project-initiated dissemination activities. The three other projects (Texas, Rhode Island, and Illinois) face obstacles to institutionalization as well, but we feel these states' dissemination activities are more likely to be continued even after NIE funding ceases. Our reasons for these assessments are elaborated on a case-by-case basis.

Kansas

Kansas is currently in its fourth year of SCBP funding. During this funding period, the process of institutionalization has been the focal point of the project's efforts. For example, KEDDS is considering equipping each regional center with its own minicomputer; each minicomputer would have state and local promising practices and human resources files as a part of its data bank. However, KEDDS personnel are not optimistic about the future of KEDDS and the institutionalizing of the system. They fear the state will not provide needed budget support when Federal funds are withdrawn. This perception is supported by statements from administrators that it was very probable that the necessary state support might not be forthcoming. Indeed, general support for the dissemination effort appears to have decreased recently. The vital recognition of upper level SEA administrators is lacking and the priorities of the recently appointed commissioner of education are not yet known. While KEDDS staff are convinced that local superintendents, principals, and teachers are positively oriented toward their services, KEDDS staff are prohibited, by state practice, from attempting to organize this base of support in order to foster continuation and further development of dissemination. The major base of support which is growing in the SEA comes from the younger (and more recently employed) professionals. These staff persons are more attuned to the efforts of KEDDS and more apt to recognize the services that the KEDDS resource base can provide for them, such as performing many dissemination functions for which they have responsibility. But this base is small in number and lacking in decision making and decision influencing power. Therefore, KEDDS remains a kind of "maverick" agency within the larger SEA, staffed by professionals who respond to the challenge of school change and improvement with a fervor and philosophy which often seems curiously out of place in their host organization.

The project's incongruence with the SEA's relatively conservative nature, coupled with the lack of top-level support for the project, appear to mean that prospects for institutionalizing KEDDS are limited. On the brighter side, the project's leadership has remained stable since NIE funding began, and this leadership may be able to find its own alternative funding sources to continue those activities which it so strongly believes are necessary for school improvement.

Michigan

Michigan's fiscal position and the existing competition for scarce resources will make it difficult to secure in FY 1983 full state assumption of all current capacity building costs; however, the service itself has become integrated in the State Library's operation and should continue. Obstacles to institutionalizing the dissemination function (as envisioned by the Program), include insufficient top-level SEA and state support for continuing project activities, loss of its entrepreneurial project manager, and lack of common understanding about how the project's information activities fit into an overall school improvement strategy for the state education department.

While there is support within the SEA for the idea of a greatly improved dissemination capacity and appreciation for the capacity that has been developed, there seems to be no "proof" available to SEA program administrators of the operational necessity for an information resource base. As a top SEA official put it, "dissemination is valued, but not necessarily more so than other programs seen as critical that compete with dissemination for resources." [4.8] Another top official in the Michigan SEA noted, "education is not yet a knowledge based profession. Organizational decision making (in schools, school districts and the SEA) is political. We can survive without a dissemination system, but we will still be in a relative state of ignorance."[4.9] And a program administrator who had successfully worked with SCBP staff and clearly recognized the value of SCBP services expressed concern that the ultimate users -- LEA personnel -- probably did not sufficiently value a dissemination capacity.

Several program administrators who personally recognized the utility and the effectiveness of the project were particularly concerned about the effects of the departure of the project's manager, the person we have described as the bureaucratic entrepreneur who was so successful in selling services of the project to program administrators. New ideas and programs often disappear when charismatic leaders leave. In this case, the project manager was not only exceedingly energetic, but she was clearly highly capable, very responsive to program managers, and she kept her promises. The hope in the Michigan project is that what the project manager has left behind is not simply an innovative administrative idea, but rather an in-place technological activity quite capable of providing services even through staff change. In the short run, the major problem is that the position cannot be filled because of a state government job freeze, so that one of the project's primary actors linking the SCBP with current and potential clients does not exist. In the long run, the hiatus in leadership may have more of an impact on the perception of the project's ability to deliver than it has on actual day-to-day provision of services to clients at the SEA, intermediate, and LEA levels. Alternatively, it could be argued that the entrepreneurial style of management, while required during the development of the capacity building project, should itself evolve into a supportive and maintenance style as the project matures and becomes an operating element of the State Library. It may be that the type of management and leadership is affected by the life cycle, whether development, growth, or maturation of an organizational entity.

The probability of state budget support for continuing project activities, at least in a direct form, is minimal. This low-probability exists for two reasons. First, many Michigan legislators are strongly opposed to picking-up costs of programs that were begun with Federal money and must be continued as part of the state budget; this situation has existed for several years and top officials in the SEA believe it is not likely to change in the immediate future. Second, the current economic climate in Michigan is extremely poor and the legislature is likely to reduce commitments to many existing programs. In mid 1980, Michigan's unemployment rate stood at 17 percent, double the national average. The state portion of the SEA's budget was targeted for a 20 percent reduction. In addition, there is the strong possibility of massive cuts in State Library funding and/or the possibility that the Library might be removed from control of the SEA.

Perhaps the Michigan project's major problem with respect to institutionalization derives from the lack of an SEA strategy for how information base activities fit into program improvement strategies. Indeed, the SEA does not yet have an overall policy statement in which dissemination is operationally defined. It may be that the lack of such a policy and, the lack of expression at top levels of the SEA about how such a policy fits into the agency's mission and approach to dealing with local school districts, results in the absence of official legitimization of the dissemination accomplishments that have occurred.

Texas

At present, the Texas SEA has one of the more comprehensive dissemination programs in the country. NIE's seed money produced a major impact in terms of helping the Texas SEA to enhance the quality and scope of its existing dissemination system. The SEA's motivation for participating in NIE's program was problem-solving initiated; the nature of the change attempted was incremental, given the agency's prior involvement in dissemination; the implementation strategy was straightforward and well-planned. During the final year of NIE funding, special emphasis has been given to identifying alternative sources of financing for the remaining NIE monies supporting the CITE resource center, on absorbing functions of the center by the SEA, and on directing the attention of key SEA personnel to services performed by the center. Coordination efforts underway at the state, regional, and local level are to be continued. When NIE funding ceases, the intent is to have an institutionalized SEA dissemination system.[4.10]

Until the recent turnovers in SEA and project leadership, the Texas project had, in our estimation, an excellent chance for successful continuation after NIE funding ended. Now, this project, too, may struggle for its survival. In November, 1979, both the Commissioner and the Director of the Division of Dissemination and Publications retired. Concurrent with their retirements, the division was subdivided into two smaller divisions, (1) Publications and (2) Dissemination. The Division of Publications included those activities formerly assigned to the production unit of the larger division: printing, graphics and the agency library. The Division of Dissemination was reduced to three units: public information, program information, and internal communications. Thus, in the reorganization following the division director's retirement, her slot was left vacant and the two resultant divisions were subordinated administratively. More recently, in March, 1980, the program information (SCBP) manager resigned. The program information manager was responsible for the overall operation of all three components of CITE. Fortunately, the current leadership has extensive (i.e., over thirty years for the two key individuals) educational dissemination experience at the local, state, and national levels, plus the benefit of having worked with the previous leadership, and a strong ongoing relationship with the regional exchange at the Southwest Educational Development Laboratory. Thus, while Texas has a new Commissioner of Education, a new Director of Dissemination, and a new general (SCBP) project administrator, the overall dissemination system is, according to current project staff, continuing intact. At last report, prospects for the future seemed good, with several divisions of the SEA which were not previously involved in coordinated dissemination efforts having made commitments for participation in 1980-81.

Rhode Island

Rhode Island, too, has experienced leadership changes since the project's inception. However, the changes in Rhode Island's project were made as part of a planned effort to move project staff from NIE monies to hard money positions, and the project's functions continue to be fulfilled.

Rhode Island has demonstrated a good track record in institutionalizing dissemination activities supported by Federal funds; both the Teacher Center and the Education Information Center were supported by hard monies by 1976. The significance of this was that even before the capacity building project began, a resource base existed, with state funds supporting the information-retrieval specialist position and a sufficient budget to cover searches for all clients. Linkers were also state supported. In 1979, strong LEA support for these linkers' efforts encouraged the SEA to provide adequate funding for their continuance.

The task of institutionalizing the capacity building project's activities has, perhaps, been easier than in other states because Rhode Island had already institutionalized parts of the SEA dissemination system. In the third year of the project's operation, the SEA took further steps to support other project personnel. The project director was moved into a hard money slot, as coordinator of the Inservice Training Unit, and the project was moved into the Support Services unit which is also a part of the Bureau of Technical Assistance. The SEA is now in the process of taking steps to institutionalize the two remaining NIE-funded positions of dissemination specialist and communications specialist. The project fits into the context of the overall mission of the Bureau and the SEA, and this has probably been the key to the institutionalization to-date of the project's components.

Illinois

Of all the states, Illinois appears most likely to both institutionalize the project's on-going efforts and also to continue to enhance the SEA's dissemination capacity for school improvement after NIE funding ends.

The Illinois SEA has increased its financial contribution to the capacity building project each year. By the fifth year, the proposed state contribution had increased to the extent that a Federal budget was not requested for linkers. All linkers activities involving inservice training, needs assessment, and planning for specialized dissemination are provided by the SEA. The activities identified in the Federal budget for the fifth year involve developing two additional files for the resource component and are viewed as contributing to the goal of institutionalization.

The project is in the enviable position of having the strong support of the chief and his executive deputy. The project is well-woven into the operations of the SEA, and is considered a significant contribution for the SEA to fulfill its mission of identifying and making resources available to LEAs for school improvement.

Summary

Among the five states, dissemination capacity has been institutionalized to varying degrees. Factors which influence the project's success and eventual incorporation into the SEA as a functioning part of the agency include the stability and entrepreneurial skills of key personnel (both in the project and the SEA), the degree of congruence of the project's functions with the SEA's structure and mission, and the acceptance of the project functions by top level SEA administrators.[4.11]

Equity

Although the Institute's focus on increasing educational equity was not explicitly enunciated until 1978, the SCBP did include equity concerns as a program component. Each participating SEA was "to improve access to information resources for all educators, including minorities, women, and the disadvantaged."[4.12] Capacity building projects have operationalized the program's equity requirement by using either passive "equal access" or more active "affirmative" strategies.

Most projects have followed the equal "access" strategy, that is, by stating that their services are available to all members of the educational community. Three of the case study states used this strategy: Texas, Kansas and Michigan. Such projects consider all members of the educational community as potential clients, but their dissemination systems are demand systems; that is, the systems are user-driven, responding to requests, with all requests receiving equal priority. For example, in Texas, the CITE Resource Center is viewed as most useful in small areas, but most used in large urban areas. So serving in an equal manner may result in inequities of use.

Other projects have operationalized the equity requirement by using one or both affirmative strategies: (1) targeting services to women, minorities, and disadvantaged, or to those who serve such groups (i.e., the specific clientele strategy which focuses on equity populations) and (2) focusing services on specific substantive problems and materials that are directly related to educational equity (i.e., the specific topic strategy which focuses on equity topics.) This strategy may include packaging information (e.g., annotated bibliographies, information catalogs) to address equity related issues or developing special files (e.g., promising practices, human resources) to deal with topics like bilingual education, special education, gifted and talented, or sex equity.

Of the five states, only Illinois has prepared a written plan for addressing the needs of underserved groups. Developed with cooperation from SEA staff in the EEO, Title I, and Title VII offices, the plan defines special populations as covering both curriculum populations and specific groups of students. The plan identifies activities to meet EEO objectives, activities which include targeting materials to special populations, targeting information about EEO topics to clients in general, and building files to meet the needs of special populations. Thus, Illinois has combined both affirmative strategies as well as the equal access strategy in its approach.

Rhode Island has combined both the equal access strategy and the specific topic affirmative strategy in its approach to meeting the equity requirement. The project has interpreted the equity thrust to mean that all students in the state should have access to those educational resources which optimize their learning. Educational resources include personnel, facilities, money, and the knowledge with which to improve the educational delivery system. The capacity building project has operationalized the equity thrust by clearly stating that the dissemination system cannot be held accountable for the decision of local educators to make changes and improvements in educational programs, but should be held accountable for the equality of access to the information and technical assistance services it provides to facilitate utilization of that knowledge. The project has developed special searches and publications dealing with such topics as women's rights and assistance for unmarried pregnant mothers. Finally, the project maintains special sub-files in such areas as ethnic studies and bilingual education.

In summary, the projects vary in their approach to meeting the program's equity requirement, just as they vary with respect to other program components. A majority of the projects have followed an "equal access" strategy, merely providing all educators with access to information resources. Other projects have followed an "affirmative" strategy, focusing services on underserved clients or on equity-related issues. However, fulfilling the equity goal is not a major concern or accomplishment in these states.

Summary

In this chapter, we examined and described how five SEAs implement and institutionalize state dissemination systems. During our intensive examination, we discussed factors which facilitate and impede the building of dissemination capacity. In this summary section, we present a synthesis of those factors which appear to be associated with the state's experiences. In essence, the factors identified in this summary section are "threads" or "themes" which run through each of the five state's experiences and provide us with clues as to the significant features of the capacity building effort. Some of these themes will assist us in later analyses where we will examine the variations in capacity building strategies and results. Six major threads have been identified:

- Background: Previous SEA Involvement with Dissemination Activities
- The Resource Base
- Linker Structures and Activities
- Unique People
- Unique Events
- Project Relationship to Other School Improvement Efforts

Each will be discussed in turn. Later in chapter V we use the factors isolated herein to help understand the differences in dissemination capacity which exist among the states.

Background: Previous SEA Involvement with Dissemination Activities

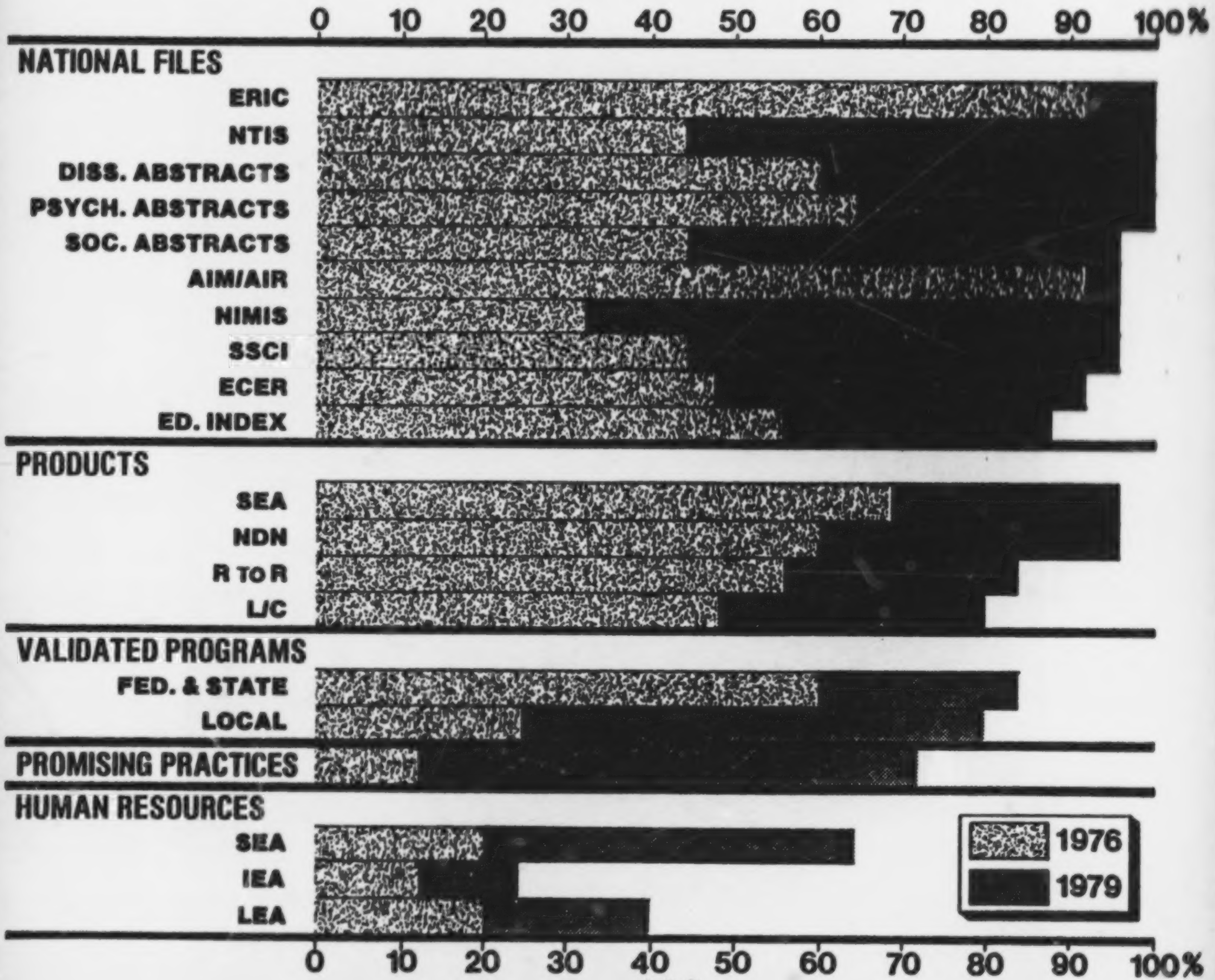
One of the characteristics of the sites reported in this chapter is the amount of previous involvement with dissemination activities prior to the award of the capacity building grant. This previous involvement is of two kinds: involvement in programs designed to enhance dissemination or program component dissemination activity; and previous structural arrangements which enhance the development of dissemination activities. In the case where states have had extensive involvement with dissemination activities, the SCBP funds act as a stimulus to continue or refine the dissemination system. Words like "the next logical step in the development of state dissemination capacity" were used to describe such states' project activities. For example, both Texas and Kansas provide situations in which there was a great deal of prior involvement with dissemination activities. SCBP funds allowed these states to "fine tune" the system. With respect to the resource base component, this meant adding other information files that had not been previously developed, particularly state and local promising practices files and human resource files. With respect to linker structures and activities, fine-tuning meant enhancing the skills of those already in a position to connect the resource base to the clients or formalizing arrangements with individuals in such a position. In other words, some of the states visited (Kansas, Rhode Island, Texas, and to a lesser extent Michigan) had a start on or an already fairly well developed resource base, and had a system of personnel in place to assist schools in the process of school improvement. The fifth state (Illinois) had to start almost "from scratch" in developing a state dissemination system. Participating in the SCBP provided the state with some funding but more importantly with exposure to a philosophy (i.e., capacity building) and to a group of colleagues (i.e., other project directors) who were wrestling with a common set of issues. We have characterized this aspect of previous experience in or development of dissemination systems as the "hill analogy." The hill analogy, briefly, asserts that movement in the development of a program is difficult as one goes up the developmental hill, but, having reached near the summit of the hill, the implementation process becomes easier. Thus, where a state is in terms of its acceptance of dissemination as a tool in the school improvement process or in the business of the SEA (i.e., its philosophy toward dissemination and school improvement) and the structures already in place relating to the dissemination system, will exert an influence upon the success and the timing of that success in achieving educational improvement objectives. The higher up the hill (i.e., the more developed), the more quickly the dissemination objectives will be achieved. An SEA's placement on the hill can change quickly, as when a strongly supportive top-level SEA administrator leaves the agency or when an individual with previous experience in capacity building in another state moves to a new location. And there may be more than one "hill"; that is there may be a "hill" for the resource base, for linker systems, for acceptance of dissemination by SEA administrators, and so forth. But this does not change the overall analogy.

The Resource Base

Each of the states visited had a resource base already established. The foundation of these bases was national data files, particularly ERIC. Each state had facilities for computerized searches. While some SCBP funds were utilized in the purchase of nationally based data sources, the major thrust in the development of a more comprehensive resource base was in the creation or expansion of validated program and/or human resource files, promising practices files and other state and locally-generated information. Funds appear to be employed to this end through the hiring of staff who could collect and index such materials. But the development of such information resources requires time and ultimately a great deal of support is needed from

Figure 5.2

Access to Resources of Capacity Building Grant States



those who are in a position to make judgments about the efficacy of the program. In particular, the creation of a state promising practices file requires not only the cooperation of local districts and schools to report such practices but also the support of the SEA that such a file, even though composed of non-validated educational practices, is of utility for educational improvement. In general, states may be characterized as being more or less in favor of the use of non-validated programs as a vehicle for improvement. Those states which rely primarily upon the validated models may be less likely to encourage the use of non-validated programs by change agents in providing information to their clients. Thus, less support for a state file of promising practices would be expected in states depending upon validated programs like those available through the NDN. It should be noted, as well, that even though states may report the existence of such files, the extent of development may vary greatly. In states in which non-validated practices are supported, we would expect that such files would be more extensively developed and less likely to be dropped in a period of retrenchment by the state and SEA.

Linker Structures and Activities

Each of the states visited had a structure for linkers in place prior to the SCBP grant award. Three of the states had individuals already functioning as "linkers" within the existing structure; the other two states identified and trained individuals to function as SCBP-related "linkers" following the grant award.

Using information obtained from the five states, in combination with our knowledge about linker structures in other states, we developed three models of linker-resource base relationships. Arranged along a continuum, the models take into account the degree to which and manner in which the resource base and linker component are "coupled" or fastened together. In the non-coupled model, the resource base and linkers have no formal ties, other than the fact that the resource base exists as a service unit for the linkers. In the loosely-coupled model, there is greater coordination or cooperation (and sometimes formal relationships) between the resource base staff who are usually in the central SEA and the linkers who are usually personnel of intermediate or regional education units, which may or may not be part of the SEA. In the tightly-coupled model, the linkers and resource base are housed in the same SEA unit and report to the same administrator, thus enforcing a higher degree of coordination between the two components and their associated school improvement activities.

One related thread, or question, which results from this examination of linker structure and activities is the degree to which the dissemination system, that is the resource base and the linkers, is integrated into the school improvement process. On one hand, the establishment of cadres of linkers who are involved in implementation (change) activities, suggests the creation of a special branch of the SEA who are charged with fostering change. On the other hand, some dissemination systems appear to be removed from the school improvement process to such a degree that there is little evidence of any involvement. Thus, an overriding question is raised: what is, or should be, the appropriate role of the dissemination system in a state's school improvement process, and by extension, what should be the appropriate role of linkers in that process?

Unique People

One of the most striking similarities among all of the sites is the importance and significance of the organizational entrepreneur. By organizational entrepreneur we mean a person, usually the project director of the program manager, who through their individual efforts help to develop coordination or cooperation with other parts of the SEA. These persons make contact with representatives of other programs and sell the services which can be provided by the burgeoning dissemination system. Often this is achieved through a trading session which often resembles less of a _quid pro quo_ and more of a something for nothing. In other words, the site visits have found that other agencies are persuaded to use the dissemination services or are persuaded to share their information resources through the realization that the capacity building project can, and will, take over some of their information handling tasks. This relieves the agency of one set of responsibilities leaving them free to utilize in other ways those unused resources. The success of developing this coordination/cooperation with other agencies within the SEA, while sometimes supported by higher-level SEA administrators, is usually the result of a great deal of hard work, controlled aggressiveness, and able persuasiveness by a few individuals in the project. Gaining such cooperation appears easier when the project leadership is in close proximity (status-wise) to the chief state school officer.

Unique Events

Unique events often play a strategic role in the development of a states dissemination capability and place within the SEA. These unique events, or critical incidents, often relate to the appearance of a new chief state school officer. The change in the chief state officer often means a change in philosophy about or toward dissemination which could have either a positive or negative effect upon the continuation of dissemination efforts.

Changes in economic conditions in states can have critical impacts upon the development and institutionalization of the dissemination system. Increased stress upon the resources of a state brought about by higher unemployment, for instance, can cause state legislatures and state administrators to withdraw support for the continuation of the dissemination effort.

Project Relationship to Other School Improvement Efforts

One of the major determinants of the eventual success of the effort to build and sustain a dissemination system appears to be whether the SCB project and the general dissemination effort complements or compensates for school change of the SEA. In some cases, the efforts of the project may be at variance with the approach taken or services provided to enhancing school change by the SEA (e.g., Kansas). Such variance could be the result of a difference in philosophy of change strategies or in terms of the role to be played by a state agency vis a vis local schools. In other cases, the project provides a vehicle which complements the efforts of the SEA, both in terms of philosophy and in terms of fitting into a structure of school improvement activites. This is particularly evident in those states where the project becomes managerially and operationally intertwined with the SEA school improvement process. In Texas, for instance, the project is intertwined with program validation processes, Title IV-C, NDN and the pre-existing school improvement structure. In Rhode Island and Illinois, the project is also integrated with the overall SEA school improvement approach. Between these two approaches is a third one, where the project is neither totally separate nor tightly integrated with other school improvement efforts. Michigan fits this third approach. The three approaches are summarized in Figure 4.2. Although it is too early in the institutionalization process to determine whether one approach is better than another (in terms of the continuance of project activities after NIE funding ceases), we believe that a project which is integrated with the overall SEA school improvement effort is more likely to continue after the grant period than those which are not.

Further, those projects which complement rather than compete with the existing school improvement effort are more likely to be continued. However, there are also those situations within which the project must compensate for the relative lack of SEA school improvement efforts. In such situations the continuation of the project and the dissemination system may well depend upon the power of the group(s) being served or the groups(s) who perceive the utility of the dissemination system. Thus, the model characterizes the relationships between the SEA and the dissemination project which, if found in other states, should indicate the probability of that state incorporating the dissemination system into its ongoing operations.

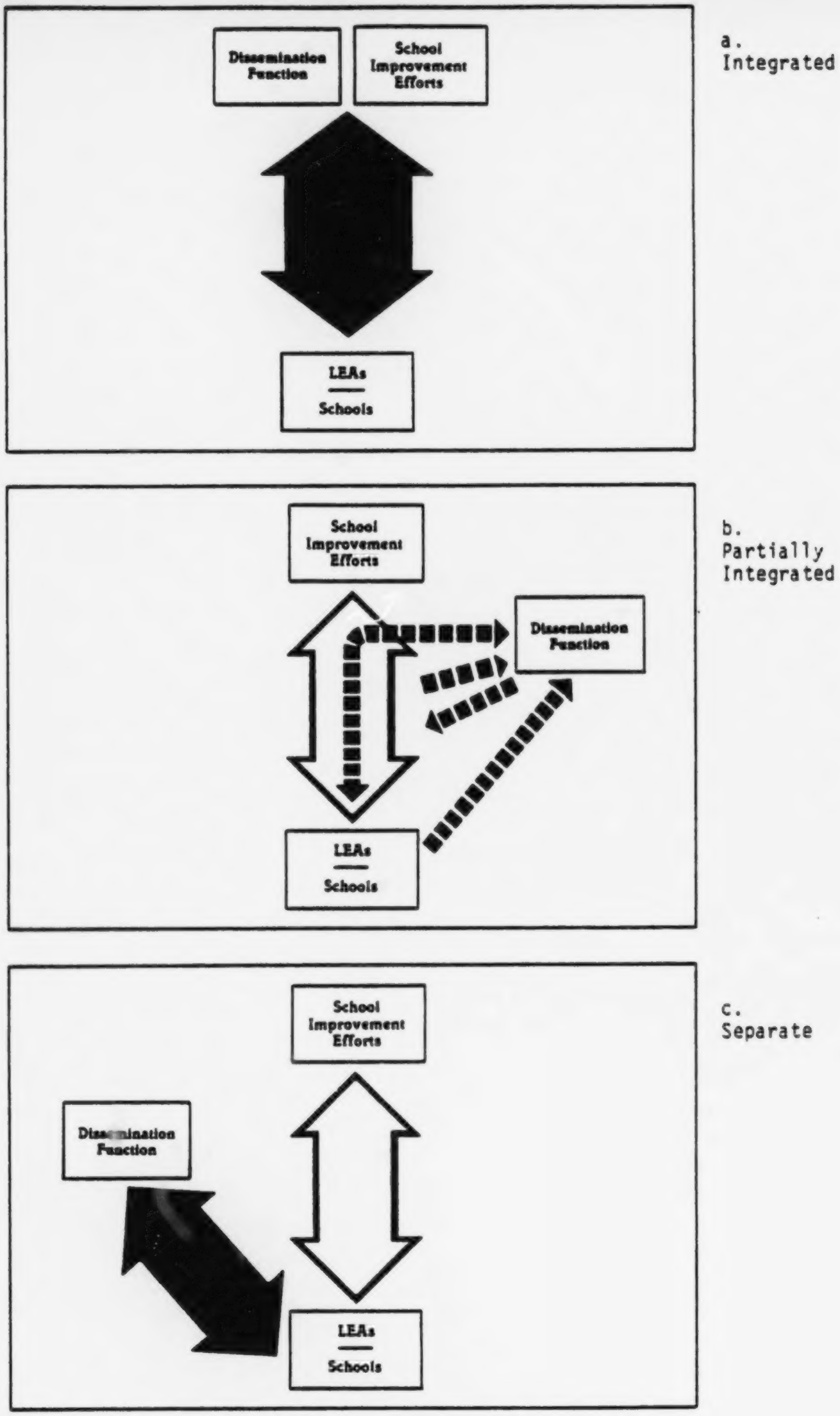

Dissemination Function
School Improvement Efforts
LEAs
Schools
a.
Integrated
School Improvement Efforts
Dissemination Function
LEAs
Schools
b.
Partially
Integrated
School Improvement Efforts
Dissemination Function
LEAs
Schools
c.
Separate

Figure 4.2 Relationships of Dissemination Functions to School Improvement Efforts

FOOTNOTES

4.1 National Institute of Education, Program Announcement: State Dissemination Grants Program, FY 75, p. 11.

4.2 Ibid., pp. 4-11.

4.3 Murphy, Jerome T., State Education Agencies and Discretionary Funds: Grease the Squeaky Wheel, Lexington, Massachusetts: Lexington Books, 1974, pp. 232-233.

4.4 National Institute of Education, Ibid., p. 11.

4.5 Interview with Rhode Island SEA official, February 25, 1980.

4.6 A recent client assessment survey conducted by an independent evaluator (Griesemer, J.L., University of Rhode Island, May 1979) indicated "little or no difference in the perceived quality" of searches initialed by EIS and PDC staff. However, PDC staff were perceived as more often providing additional material that was also appropriate to the request, whereas EIS staff were perceived as providing information appropriate to the request with greater promptness (pp. 9-17).

4.7 Dissemination Analysis Group, Dissemination in Relation to Elementary and Secondary Education, Final Report to the Dissemination Policy Council, Washington, D.C.: U.S. Department of Health, Education and Welfare, January 1, 1977, pp. 3-4.

4.8 Interview with Michigan SEA official, February 27, 1980.

4.9 Interview with another Michigan SEA official, February 27, 1980.

4.10 After NIE funding ceased on August 31, 1980, CITE began a new year with a budget of $140,000, of which 85 percent comes from federal funds provided the SEA for Title IV-C, and ESEA Title VI-B. Ten percent comes from subscription fees charged to the budgets of the 20 regional education service centers. The remaining five percent derives from a contract with the Regional Exchange of the Southwest Educational Development Laboratory to provide services to SEAs in Arkansas, Louisiana, Mississippi, New Mexico, and Okalhoma. Overall, the 1980-81 operating budget is about 10 percent lower than for the previous year. The budget decrease and inflation have resulted in having to decrease the CITE staff by three (from eight to five persons) and to place limits on the number of comprehensive, customized searches which can be produced.

4.11 As of the Fall of 1980, four of the five states had new chiefs. This may be the major test in each situation.

4.12 National Institute of Education, Ibid., p. 15.

5

DESCRIBING DISSEMINATION CAPACITY

The preceding chapter described the SCBP as operationalized and implemented by five states. This chapter broadens our investigation from an intensive study of five states to an investigation of the components of dissemination systems of project states in Cohorts I, II and III (n=25). It also compares the components of the dissemination systems of project states with those of non- SCBP states and newly-funded (Cohort V)[5.1] states (n=8).

These components are defined in the program goals developed by NIE. NIE's preliminary and continuing goals for the Program specify that each state would: (1) develop a comprehensive resource base; (2) develop a linker system; (3) coordinate these; and, (4) institutionalize the resultant system by the time the grant period ended. That is, the state would "pick-up" the functions and activities of the project and incorporate then into the school improvement framework.*

In the following sections of this chapter, each of these components is discussed. First, we define each component. We then present what is "out there" using, as our presentation device, scales which describe the indicants that comprise each component and which offer a way to describe the general process associated with building a comprehensive and coordinated dissemination system and becoming institutionalized.[5.2] Throughout our discussions, we present interpretations of what occurred, in terms of growth and degree of success, and of the possible interrelationships between different components. Our interpretations will be based, in part, upon the information derived from the case studies of five states. In the final sections of the chapter, we examine the association between contextual and project characteristics and the development of state dissemination systems.

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* States could "pick-up" the support of dissemination functions from state appropriations, federal program administrative set-aside funds or a combination of the two.

In order to avoid a presentation of data which would depend upon a large volume of discrete variables, scales were constructed to describe dissemination capacity in as concise and meaningful a way as possible. These scales are:

- Comprehensive Resource Base: The extent to which knowledge resources are available from national regional and local sources which provide the educational community with the information needed for improving school practices.
- Coordinated Resource Base: The extent which the information contained in other resource bases is made available to clients through incorporation into the project resource base or through cooperative arrangements with other program units.
- Comprehensiveness of Media Linkages: procedures and products utilized to make potential clients aware of dissemination services and to provide information to clients.
- Comprehensiveness of Program Linkages: The network of relationships established with different programs in the SEA and the state, both as resources for the project and as clients of the project.
- Coordination of Linker Activities: The coordination of personal linker agents and the resources available to clients in order to provide the information to clients.
- Institutionalization: Evidence of the provision of mechanisms for the continuation of the project after NIE funding ceases.

The items which comprise the scales were derived from both the theoretical literature and practitioners' assessments of what characterizes a "comprehensive and generalized" SEA dissemination system. The data from which the six scales were developed came from SCBP project director's responses to the survey of Capacity Building Indicants (CBI) and selected items from the Project Director Questionnaire (PDQ). The scales represent a distillation of those items which "hung together" both on the basis of content and reliability analyses. A separate technical report (Volume IV) describes the development and utility of the scales in more detail.

In this chapter we use the scales to extend our understanding of capacity building beyond the information gathered from the five site visits and to describe what dissemination systems generally look like in the states. By so doing we hope to inform practitioners, policymakers, and others interested in building and institutionalizing dissemination-capacity.

Getting Information for the Clients: The Resource Base

The program announcement encouraged SCB projects to make available a wide range of resources, including information files such as ERIC, validated program files, promising practices files, and human resources.

> Information files include many such data bases available nationally (e.g., ERIC, National Institutional Materials System). Thus, both effort and cost to the project should be minimized by searching out and utilizing already existing files that are easily assessible, such as in the state libraries.
>
> Validated program files contain practices or programs which have been studied and judged to be effective by some recognized and accepted group of "experts". These files are often linked to either ESEA Title IV-C Programs or the National Diffusion Network. Such files may also be developed as a result of state supported efforts (as in the Texas Diffusion Network) or through the collection of identified practices and programs being used in classrooms and schools.
>
> Promising practices refer to non-validated educational techniques and ideas that may be used for educational improvement. For many educators, this type of information may be relevant to their needs since it is often the "good idea" which proves to be most helpful and easiest to accomplish, rather than larger programmatic change.
>
> Human resource files range from lists of available consultants to sophisticated data banks for matching client needs with available human expertise. In developing a human resource file, projects must determine how personnel will be selected for inclusion in the file, deal with the transient nature of personnel in updating the file, address confidentially issues, design mechanisms to "pay" for requested services, and develop procedures to assess their utility in providing services. For such reasons, human resource files are difficult for projects to include in their resource bases.

The Comprehensive Resource Base Scale

Examination of the Comprehensive Resource Base Scale (Figure 5.1) shows that all projects had access to four resources: Education Resource Information Center (ERIC), National Information Center for Special Education Materials/National Instruction Materials System (NICSEM/NIMIS), National Diffusion Network (NDN) products and SEA products. With the exception of NICSEM/NIMIS, the other three are resources that SEAs generally have available before funding. These four resources form a base upon which a comprehensive set of resources is further developed. Other resources typically available are descriptions of Federal and state-funded innovative programs and such files as National Technical Information Service (NTIS) and Exceptional Child Education Resources (ECER). Resources that about fifteen to twenty of the projects have are: files of promising practices, including local exemplary programs, and Putting Research into Educational Practice (PREP) packages; legislative files; and SEA human resources. The least frequently included resources (utilized by less than half of the states) are LEA- (10 states) and IEA- generated (6 states) local human resource files. These are found in the upper parts of the scale.

The ordering of the indicants included in the comprehensive resource base thus shows two patterns: one pattern involves the type of resources; the second pattern involves the source of the resources. The most widely used resources are national data files, print-based materials, and products (24-25 states). Innovative programs, (including Federal and state-funded innovative programs, and local exemplary programs) are the next numerous (21 states). Promising practice files and legislative files are included with less frequency, while human resource files are least often included in an

INDICANTS	NO. OF STATES 1978	NO. OF STATES 1979
Intermediate Service Agency Human Resource File	10	6
LEA Human Resource File	11	10
Putting Research into Educational Practice (PREP) Packages	15	16
SEA Human Resource File	17	16
Federal Legislation File	17	19
Promising Practices File	18	18
Information on Operating Local Initiatives Which are Exemplary	19	20
State Legislation File	20	17
Execeptional Child Education Abstracts	23	23
National Technical Information Service (NTIS)	23	25
Information on Federal and State Funded Innovative Programs	24	21
SEA Products	25	24
NDN Products	25	24
Education Resources Information Center (ERIC)	25	25
National Instruction Materials System (NIMIS)	25	24

Figure 5.1 Comprehensive Resource Base Scale

SEA's resource base. National resources are most often a part of the dissemination system, followed by state resources, local district resources, and finally, intermediate education agency (IEA) resources.

An examination of the Comprehensive Resource Base Scale shows that in 1979, the majority of information files, promising practices files, and products that were acquired in 1978, were retained. However, some additions to and deletions from resource bases occurred within states, particularly with respect to human resource files, legislative files, and promising practices files.

Resource Base Development of Non-Project States. In the category of non-project states we include those states responding to the questionnaire which have never had an SCBP grant and those states which were just awarded, but have not yet put into effect, an SCBP grant, (n=8). Non-project states typically have ERIC (seven states), SEA and NDN products (six), Federal and state legislative files (six), and innovative practices and PREP (five). This subset thereby represents resources that non-project states have and probably reflects what states that receive SCBP grants typically have before the project begins. Only half of the non-project states have ECER; three have information on local exemplary initiatives; and only two states have promising practices files and human resource files. There is little doubt that with the SCBP grants, states have indeed become more comprehensive in their resource base, expanding both the breadth and depth of their information resources. This is particularly true of promising practices and human resource files, those files which, we have noted, may be among the more difficult to develop. Figure 5.2 indicates the breadth and depth of resources added by project states during the grant period.

An Alternative Resource Base: FIDO

In our development of the Comprehensive Resource Base Scale, several resources were excluded when submitted to the inter-indicant relational analysis. Exclusion was based on their low indicant-total correlations and resultant depressing of the average scale reliability coefficient. Three of these resources, FIDO (Fugitive Information Data Organizer), lab products, and files of user needs were found to correlate with one another, and thereby formed a cluster of their own. This cluster was negatively correlated with the Resource Base scale. This indicated that the three resources tended to occur in systems that had a relatively small number of resources, suggesting that several states developed an alternative kind of resource base rather than acquiring the resources found on the scale. Usually, this configuration was found in states that contracted with SMERC (San Mateo Educational Research Center), which allowed them to acquire ERIC and FIDO. In order to determine more specifically what FIDO substitutes for, we correlated FIDO with various different kinds of resources, including (1) national files; (2) innovative practices; (3) promising practices; (4) human resources; (5) products; and (6) instructional materials. The results indicated that contracting out for ERIC and FIDO tended to be negatively related to the number of national files (-.33), products (-.26), human resources (-.22) and innovative practices (-.19). Thus, there appears to be an alternative route to the development of the resource base, one which suggests less development of breadth in kinds of resources, although such a system may meet needs in the particular states.

Coordination of the Resource Base

While NIE's program announcement specified the goal of developing a comprehensive resource base, it also stated that the resources may be assembled in one place or they may be dispersed. The announcement thus permitted a great deal of flexibility concerning the design and management of the resource base. Information resources could be assembled in one location, and in some instances this resource base might be located within the project's direct auspicies. Other program units could be cooperative and supply the centralized resource base with duplicates of some of their files. Alternatively, resources could be located in the SEA in various programs which have their own dissemination requirements (e.g. vocational education, special education) or in other offices which deal directly with dissemination (NDN, Title IV-C). Some projects might utilize resources located within the collections of intermediate education agencies or within the collections of various other agencies, including state libraries, state museums, public libraries, private vendors, and institutes of higher education.

Coordination of resources, then, refers to developing the availability and use of the varied information bases in the state to meet the needs of clients, including awareness and usage of the resource base by other projects and personnel in the SEA, and the development of necessary referral procedures. By coordinating various sources of information and delivery, the effectiveness and efficiency of the system should be enhanced.

The Coordinated Resource Base Scale

The Coordinated Resource Base Scale (Figure 5.3) describes a spectrum of behavior ranging from a broadening of awareness of the various elements of the resource base in the SEA and LEAs to the development of procedures which assure the availability of all extant resources to the SEA and to LEAs.

For both years, almost all of the states reported that the resource base and project staffs were aware of the components of the resource base, so that

INDICANTS	NUMBER OF STATES 1978	NUMBER OF STATES 1979
Rate of Rejections to Responses	0	0
Usage of the Compendium of Resources by Other Resource Agencies	10	12
Formal Referral Process That Incorporates Procedures to Avoid Duplication of Effort	11	14
Frequency of Coupling Human Resour File and Research Information Files in Responding to Client Requests	13	16
Number of Contacts/Rerrals of Requests to Other Resource Agencies	14	16
Responses Coupled with One or More Referrals	15	17
Redundancy in Types of Information Services Available from Different Resource Agencies	24	23
Project Staff Awareness of Components of Comprehensive Resource Base	25	25
Resource Base Staff Awareness of Components of Comprehensive Resource Base	25	23

Figure 5.3. Coordinated Resource Base Scale

these appear to represent the baseline for describing a coordinated resource base. As one reads up the scale, from those items which are employed by more states to those used by fewer states, and if one assumes that those elements utilized in more states are easier to develop and those employed by fewer states are more difficult to develop, then one can envision a picture of the process of coordinating resources. Thus the following scenario, supported by our site visits, is suggested.

At the earlier stages of coordination, the services to clients tend to overlap and the various resource bases duplicate each other's efforts. Operationally, a client could access a variety of sources for the same information. This does not necessarily mean, however, that the centralized resource base has as comprehensive an information file in the area of special education, for instance, as the special education unit.

As the SEA and the other resource agencies become aware of services the project can provide, and cooperation between the project and other resources is achieved, the central resource base expands its services and broadens the variety of materials which can be included in the response to a client's request. This is accomplished by coupling responses with referrals to other agencies which may have more extensive sources of information pertaining to the client's request. The development of coordination/cooperation is further achieved when the central resource base begins to contact these other agencies for the client rather than referring the client to the agency. At this point the response sent from the project to the client includes information from a variety of sources.

This "reaching out" of the project to other agencies or program units develops working relationships which form, for that SEA, a "compendium of resources," a network of units which are beginning to share information.

This sharing, as shown in our site visits, can take the form of cooperative agreements between program units to respond to requests for information or it can take the form of other program units providing the information sources to the central resource base for inclusion directly into centralized files.

As greater coordination is achieved, other agencies become aware of the project and its services and begin to utilize the project to collect information for their clients. Finally, a formal referral process is developed, through which the SEA can respond with a minimum of duplication of effort. In practical terms, when there is adequate coordination of the SEA resource base, a client can request assistance from any program unit in the SEA network and receive a comprehensive (i.e., data from multiple sources) response.

When the scale is assessed for 1978 and 1979, we see a systematic increase in such coordination among the SCBP states. The process of developing coordination described above holds in generally the same order. A comparison of the coordinated resource bases of project states with those of non-project states illustrates that the ordering of the indicants for the non-project states parallels that of project states, indicating a similar process of coordination for all states, where creating awareness is a relatively early step, followed by the development of working relationships among program units, and, ultimately, a formal referral process to minimize duplication of effort. Although the pattern of coordination is the same for all states, less than half of the non-project states have gone through any awareness process. Again, this difference illustrates the greater degree of achievement of project states as compared to the non-project states.

Getting the Client to the Information: Linkages and Linkers

The NIE program announcement for the State Dissemination Grants Program defines the second major aspect of the building of comprehensive state dissemination capacity as the development of a "means of linking the client group to the resource base."[5.5] The announcement goes on to describe this component as follows:

> Linkage activities are those services which facilitate user access acceptance, and successful utilization of knowledge resources. Printed materials, media, and electronic devices can contribute to the performance of the linkage function, but interpersonal communication is essential in providing client services. A growing body of research in education and in other fields shows that direct, person-to-person intervention in providing information is both the preferred and the most effective way to help others utilize new knowledge and practices. Among linkage roles in educational settings, several seem to provide useful guidance. They include:
>
> - Subject specialists or resource persons serving as full-time staff members of State educational agencies, intermediate units, or large city school districts;
> - Field agents located in educational laboratories and in State projects supported by Title IV, of Public Law 93-380;
> - School study council participants who review, select and introduce new programs in the schools of council members.[5.6]

We believe that there are two kinds of "linkages" discussed in the above excerpt: "linkages" which describe how projects provide access to and acceptance of knowledge resources; and "linkers" who facilitate the "successful utilization of knowledge resources." Linkages of the first type, providing access to the knowledge resources, can be further subdivided: first, printed materials, media and electronic devices which can inform potential clients; and second intraorganizational (i.e., within the SEA) or program arrangements through which clients can be informed and assisted to access knowledge resources. The object of making this distinction is to propose for this analysis that the term "linkages" refer to the networks and media developed by projects to enhance the utilization of knowledge resources, as distinct the group of persons who are more directly involved in the choice among and utilization of knowledge resources, whom we call linker agents or "linkers". Therefore we have developed two scales which assess the comprehensiveness of project linkages (comprehensive media linkages, comprehensive program linkages) and a third scale which describes the coordination of linkage agents with the resource base and with clients (coordinated linker activities).

Comprehensive Media Linkages

This component refers to the use of a variety of mechanisms through which the system broadens the awareness by others within and outside the SEA of its services, and mechanisms which can be used to provide information to clients. Media linkages include the print-based materials (e.g., publications, newspapers) and electronic devices (e.g., slides, films, audio-visual materials, educational television) used by projects. They are used in two major ways. The first is to create potential and targeted clients' awareness of and interest in the project's existence and services, and to provide instructions for utilization of its services. This might take the form, for example, of a project-produced brochure mailed to local districts to let them know how to access the resource base, or to acquaint them with the name and phone number of the linker assigned to the client's area.

The second way that media linkages are used is as a means of presenting information to a larger audience, or as a product that can be "delivered" over and over again. Examples include the development of a slide-tape presentation that an SEA staff member could use to present information to his or her constituents in a more effective manner, or the running of articles in a publication or newspaper concerning a "hot topic," such as special education regulations. The project staff, in collaboration with other personnel, might

might produce a slide-tape, cassette, or film concerning an area for which there have been recurring requests for information; the project and others then have this product as an available resource when requests are made, and it becomes part of the information packet.

One could speculate that when the project first becomes ready to offer services to clients, media linkages are used primarily to create awareness and instructions for usage. Such media linkages might continue to be used to varying extents, depending upon the rate with which the project broadens its client base. For other projects, some media linkages might be discontinued after a period of time. The use of media linkages as a resource might begin at varying points after the system begins providing services to clients. Projects, with limited funds, might concentrate on a few types of media linkages that they feel comfortable with to use as their basic "tools."

The Comprehensive Media Linkage Scale (Figure 5.4) indicates that, for both 1978 and 1979, the predominant types of media are project and SEA publications. Each of the other media types are used by less than half the projects. Projects, in general, have about four or five of the nine types included in the scale. It appears that after the use of publications, projects will explore various other media forms, and eventually select two or three media types that suit their needs the most, rather than attempt to acquire a wide repertoire of available media linkages.

A state-by-state examination of the types of media linkages employed reveals that, in 1979, four states use only publications and newspapers as media linkages. Out of these four, two had dropped electronic media linkages from the previous year. The other states have a combination of print-based and electronic linkages: eleven states have one or two publications and one to three electronic linkages; two projects have publications and educational

INDICANTS	NUMBER OF STATES 1978	NUMBER OF STATES 1979
Use of Films	4	4
Use of Educational Television	4	6
Use of Prerecorded Cassettes	6	5
Use of Newspapers	7	10
Use of Computer-Based User Systems	9	10
Use of Slides	11	11
Use of Audiovisual Aids	11	12
Use of Project Specific Publications	17	20
Use of SEA Publications	18	21

Figure 5.4. Comprehensive Media Linkage Scale

TV; and four projects use publications, electronic linkages, and educational TV. Alaska is the only state which uses all the media linkages on the scale. This is most likely due to its geographical characteristics, which reflects its need to reach a widely dispersed population.

An examination of the non-project states indicates that two states had almost every media linkage on the scale, two states had none, and one state had only publications. These variations may indicate a shortcoming of the comprehensive media linkages scale in showing program effects, or reinforce the notion that there are multiple purposes attached to media linkages (i.e., to create awareness of available services and to serve as a resource).

Comprehensiveness of Program Linkages

A major NIE program objective is the establishment of a network of relationships with different programs in the SEA and state. This is necessary not only for building the resource base but also because these other programs are potential clients of the dissemination unit and because they are as potential allies in the school improvement process. We call the relationships between the capacity building project and these other agencies, program linkages. Again, the reader should note that these linkages are not synonymns for "linkers."

These linkages can range from simple awareness of the project and its services, to promotion of the project to others (i.e., by increasing others' awareness of the project or through referrals to other programs). If the linkages can be thought of as a potential network of relationships between people and programs, then the programs with which a project establishes linkages can be viewed as both clients of the project and as resources that can be available to the project in responding to client requests.

It could be that the more linkages a project has, the greater the chance that the system can access the most complete and relevant information which can be tailored to meet clients' needs (in other words, there is some overlap with the coordination of resources) and the greater the chances for subsequent acceptance of its activities. However, the greater the number of these linkage elements, the greater will be the demands on the project's management in terms of coordinating and maintaining contact and rapport.

Three groups of program linkages can be identified: (1) dissemination specialists, including resource base staff, National Diffusion Network (NDN) staff, and Title IV-C staff; (2) program-specific specialists, including staffs of Title I, vocational education, handicapped education, early childhood, adult education, and other programs; and (3) state library system staff.

An examination of the Comprehensive Program Linkage Scale (Figure 5.5) indicates that for both years, most frequently developed linkages are resource base staff, Title IV-C, and NDN staff. The least developed linkages are with migrant education, early childhood education, and state library system staff.

Several trends can be identified between the 1978 and 1979 scales. One trend that seems clear is that projects generally first involve elements that are close to it (i.e., at the SEA) and then proceed to enlist persons closer to local education, most notably intermediate education agency staff. While the involvement of NDN staff experiences a slight decline, the involvement of Title IV staff and many program-specific staff generally increases. Possibly as a result of further implementation of P.L. 94-142, special education and handicapped education staff showed the most dramatic increase in involvement, followed by Title I staff. States are likely to have established linkages

INDICANTS	NUMBER OF STATES 1978	NUMBER OF STATES 1979
Use of Migrant Education Staff	10	8
Use of State Library System Staff	14	14
Use of Early Childhood Education Staff	15	13
Use of Title I Staff	17	14
Use of NDN Staff	17	19
Use of Career Education Staff	17	16
Use of Special Education Staff	18	16
Use of Handicapped Education Staff	18	14
Use of Title IVC Staff	23	20
Use of Resource Base Staff	25	21

Figure 5.5. Comprehensive Program Linkage Scale

with dissemination-type specialists, but only about half the states have established linkages with their state library system. Although projects with few exceptions, tend to retain the linkages, there are many fluctuations within the group of program-specific linkages. While half of the states increased the number of programs with which they have established linkages, the other half have either dropped some of their program linkages, or show a combination of additions and deletions.

An examination of non-project states indicates that like project states, Title IV staff are the most frequently utilized linkages, followed by SEA program staff. However, unlike project states, resource base and NDN staff are rarer elements, which might indicate that an impact of SCBP funds is to encourage coordination with other dissemination specialists.

Local Linkages

Within our original list of program linkages, we included linkages at the local levels, including LEA and building level representatives, local librarians, and school board members. These were not related to the major scale, but instead formed their own cluster. Instead of considering these as program linkages, these linkages seem to represent local personnel serving linker functions.

With respect to representation of local linkages, several different patterns emerge. One pattern is of no change between years, where projects have a stable group of linkages that probably fit their model of providing services; this is most evident in large states like Texas, which uses linkages with Intermediate level staff but not representatives in local districts. Larger states may find that it is not feasible or economical for the project to attempt to use district linkages. A few other states drop any IEA or LEA linkages they previously had (i.e., Nebraska and New Hampshire). Other states may add and/or delete linkages in order to become increasingly more local (i.e., at the building level).

A Note on the Coordination with the National Diffusion Network (NDN)

An examination of the structural relationships of State Capacity Building Projects (SCBP) with the National Diffusion Network (NDN) State Facilitators (SFs) provides a more indepth look at the linkages SEAs have established with the NDN. The structural relationships may be divided into three categories: (1) the SCBP and NDN/SF are managed by the same person or unit, (2) the SCBP and NDN/SF are within the SEA but may be managed by different individuals/units and may report to the same or a different adminstrator, and (3) the SCBP is within the SEA but the NDN is outside the SEA. The relationship of the SCBP states with the NDN/SF for 1979 is presented in Table 5.1.

TABLE 5.1 RELATIONSHIPS OF STATE CAPACITY BUILDING PROJECTS (SCBP) WITH NATIONAL DIFFUSION NETWORK (NDN) STATE FACILITATOR (SF)

	STRUCTURAL			
STATES	SCBP AND NDN/SF MANAGED BY SAME PERSON/UNIT	SCBP AND NDN MANAGED BY DIFFERENT INDIVIDUALS/UNITS AND REPORT TO SAME OR DIFFERENT PERSONS WITHIN SEA	SCBP IS WITHIN SEA BUT NDN IS OUTSIDE SEA	TOTAL
Capacity Building States (n=25)	5	9	11	25
Number of States who have established Functional Relationship with NDN (n=17)	5	8	4	17
Percentage: Functional Rel. / States	100%	89%	36%	68%

The data presented in the Table lead us to the following conclusion: capacity building project coordination with the National Diffusion Network is facilitated by the location of both functions within the SEA, and in particular by the location of both projects within the same SEA office; coordination of NDN with the SCBP is less likely to occur when the NDN-SF is located outside of the SEA.

Coordination of Linker Activities

One of the most challenging tasks facing the management of an SCBP project is the integration and coordination of the personal linker agents and resources in order to bring information to the client. This coordination process requires the following steps: (1) project staff must become aware and knowledgable of potential resources and linkage components that might be helpful to the project; (2) project staff must then seek out these components, and begin to utilize them (i.e., "test them out"); (3) linkers must be trained, with training which ranges from awareness of the available linkages and resources to how to utilize them, and how to effect school improvement; and finally, (4) linkers must familiarize themselves with the myriad of resources and linkages, and then proceed to use those that "fit" client needs.

The Coordinated Linkage Activities Scale (Figure 5.6) illustrates the increased coordination between the resource base and the linkers. Client requests are responded to through the interaction of resource base personnel and linkers. In other words, there is a joint effort to define the problem or need of the client and to select the information most relevant for a solution. Further, there is the effort to utilize a wide variety of resources to meet the client's needs. This coordination increases between 1978 and 1979.

INDICANTS	NUMBER OF STATES 1978	NUMBER OF STATES 1979
Usage of the Compendium of Linkages by All Personal Linkage Agents	13	17
Usage of the Compendium of Resources by All Personal Linkage Agents	14	18
Proportion of All Personal Linkage Agents Who Use the Compendium of Resources	14	16
Use of Training Programs for Personal Linkage Agents	17	19
Usage of the Compendium of Linkages by SCB Project Staff	18	19
Proportion of Personal Linkage Agents Who Are Aware of Components of the Linkage System Used by SCBP	18	23
Development of Training Programs for Personal Linkage Agents	19	17
Communication Flows Between Linkage Agents and Resource Base(s)	19	24
Coupling of Personal Linkage Agents and Other Resources in Responding to Requests	19	25
Proportion of Personal Linkage Agents Who Are Aware of Linkage Services Available Through the SCBP	20	24
Proportion of SCB Project Staff Who Are Aware of Components of Linkage System	23	25

Figure 5.6. Coordinated Linkage Activities Scale

Perhaps the key element in coordination is the training given to linkers to assist them in their duties. There is a slight increase in the number of states providing training from 1978 to 1979; 19 of the 25 states for whom we have data do provide such training. From our site visits we do know, for instance, that the smaller states such as Rhode Island and Kansas have a greater chance to coordinate resource base and linker activities, and also to provide training to both groups. Texas project staff, resource base staff and linkers meet at regular time periods for training purposes: Illinois, with 75 linkers, also provides training and has monthly meetings at which time some kind of informal training probably occurs. However, we do not know if training is tailored for the needs of the linkers who fulfill different dissemination functions (i.e., spread, exchange, choice, implementation).

Of the non-project states that responded to the capacity building indicants, four states reported coordination among programs, resource base, and linkers. Two states had established coordination between linkers and the resource base. One state indicated efforts at developing and implementing training programs, as well as developing linker familiarization with available linkages.

In order to more fully describe the capacity for dissemination being built in the states, we now turn to a discussion of the activities which are characteristic of the linkers within the states.

Linkers and Linker Activities

In this section we present: (1) information on the number of linkers reported in the states and their organizational position; (2) an examination of the types of linker behaviors characteristic within states; and, (3) a discussion of the structure of how linkers and resource base are related. A companion study (Volume III) treats linker activities and roles in greater depth.

The number of linkers ranges from 1 in one state to 1450 in another state in 1978. The prospect of 1450 linkers in one state, particularly in a not exceptionally populated state, leads one to question the activities required of the linkers. A related question is, what kind of training could be provided for these linkers to perform their tasks. Therefore, in order to assess how states were using their linkers, we examined data from 1978 to determine how many linkers were assigned to what linker activities and at what levels in the state.

As can be seen from Table 5.2 implementation activities are performed primarily by linkers at the SEA, and IEA levels. SEA and LEA based linkers are utilized (for the most part) in activities which involve interaction with the client about information. Building level linkers are involved only in increasing the awareness and use of the resource base. Institutes of higher education are hardly involved in linker activities, as reported by the states.

Since states can employ linkers at different levels, simultaneously, we analyzed the data in terms of which linkers were utilized to provide, at least, implementation services. As Table 5.3 shows, states most often employ SEA staff as linkers for implementation. Twelve of the 29 states depend upon only one level of linkers in the SEA to deliver implementation services; five states do not assign linkers to implementation activities.

These tables reinforce a conclusion that we have made: there is a need to more explicitly define the term "linker" because the various functions that they are required to perform demand different kinds of training and elicit different expectations. We need, in other words, to understand what

TABLE 5.2 LINKER SERVICE ACTIVITIES AND LOCATION OF LINKERS, 1978

Number of States[a]

	LOCATION IN STATE STRUCTURE				
Type of Service	SEA[b]	Intermediate Units	LEA	Building	Institutions of Higher Education
Spread only	1 (100)[c]		2 (1160)	1 (400)	
Spread and Exchange	6 (36)	2 (32)	7 (651)	3 (335)	1 (3)
Spread, Exchange, Choice	4 (79)	2 (11)	1 (80)		
Spread, Exchange, Choice, and Implementation[d]	17 (736)	14 (401)	7 (322)		1 (8)

Notes: a. N=29 states; frequencies add up to more than N since states can assign different functions to linkers.

b. There are 3 SEAs who do not involve any SEA personnel in any linker activity.

c. Numbers in parentheses within cells refer to the number of linkers designated by the states in those categories.

d. There are 5 states within which no linkers are assigned implementation activities.

TABLE 5.3 LOCATION OF LINKERS ASSIGNED IMPLEMENTATION ACTIVITIES

Location of linkers	Number of States
SEA only	6
LEA only	2
Intermediate Agencies only	4
SEA and LEA	2
SEA and Intermediate	6
LEA and Intermediate	1
SEA, LEA and Intermediate	2
SEA, Intermediate and Higher Education	1
	N = 24

Note: 5 states had no linkers assigned to implementation duties.

linkers are doing to assist clients acquire and use information for school improvement. These analyses may also provide NIE with valuable information for planning purposes. It is obvious, for example that higher education institutions are not typically part of the dissemination network, as reported by states. It is also fairly obvious that the local levels of education are less involved in in-depth dissemination activity with clients than are the SEA and IEA personnel. NIE might wish to consider if greater involvement of LEA personnel is a productive course to enhance.

Keeping the Dissemination System: Institutionalization

The State Capacity Building Program provides grants for a period of three to five years to SEAs to either develop a dissemination system "from scratch," or to build upon its existing system and coordinate it with other dissemination efforts in the state. Because the grant was comparatively small and not adequate to "fully do the job," states were to make provisions for other sources of funding to support project activities during the grant period. In addition, NIE's expectations were that after the grant period, enough groundwork would have been created so that the project's functions would continue and be considered an integral function in the SEA.

In our judgment, for a project's functions to have a high probability of surviving after the grant period, there must be evidence that the state is providing mechanisms for their continuation. In addition, states should also show firm and sustaining commitments to dissemination in the form of state legislation and policy declarations. The stability of a system's permanent status can only be tested by its surviving annual budget cycles and incumbent turnover, and by its continued widespread use. Therefore, institutionalization of the dissemination function can not be truly assessed to see if it has survived "the test of time" until several years after the NIE funding had ceased.

Roger's (1971) identification of five stages in the adoption of an innovation (awareness, interest, evaluation, trial and adoption) seems useful as a paradigm to describe the initial phase of the institutionalization process. When a project first gets funded, it must advertise itself, and become identifiable, by creating awareness and interest by others both within and outside the SEA and then prove its worthiness by demonstrating its necessity and success in meeting informational needs within the SEA and at the local levels. If the project is deemed as worthwhile, it is more likely to be "adopted" by the SEA, and plans set in motion for its eventual institutionalization as an ongoing function.

The Institutionalization Scales

Figures 5.7a and 5.7b present the Institutionalization Scale. Although empirically this forms one scale, an examination of the ordering of the indicants suggests that the scale may be viewed as encompassing two separate but related parts. The first part (Figure 5.7a), representing the elements in the lower range of the scale, is project-specific and describes initial activities which should lead to institutionalization such as developing efforts to create awareness and interest in the project and generating a demand for services. Figure 5.7b represents the top half of our scale, and describes the attempts to gain project support within and then outside the SEA, namely attempts to insure institutionalization.

The most systematic description of the institutionalization process involves initial goal statements in the agency, then planning that capitalizes on project input (in terms of role definitions and experiences), mechanisms for coordinating funding for dissemination, and increasing commitments for future funding. Planning is expanded from planning for the project and its

INDICANTS	NUMBER OF STATES 1978	NUMBER OF STATES 1979
Provision for State Funding of SCB Activities After the Grant Period Ends	12	15
Awareness by Those Outside SEA of Functions Being Performed by SCB Project	13	22
Amount That Project's Five Year Plan is Updated as Needed and Made Available Regularly	14	18
Extent to Which SCB Project Was Planned by an Agencywide Group	16	15
Running of Articles Related to SCB Project Activities in Agency Publications	16	16
Participation in Executive Team Sessions, of Their Equivalent by Someone Who Is Closely Related to Project and Designated as Official Dissemination Representative	17	19
Provision for Gradual Increases of State Support Throughout the Project Period	19	15
Understanding by Those in SEA of Role Behaviors Performed by Those in SCB Project	20	22
Documentation Regarding Project	20	24
SCB Project "Conversational Credibility" in SEA	22	25
Efforts to Gain Support from Clients, Potential Support Groups, and Others Within the Larger Organization	23	25
Efforts by SCB Project to Stimulate Increased Demands	23	24
Efforts to Create Awareness Among Clients, Potential Support Groups, and Others Within the Larger Organization	24	25

Figure 5.7a. Institutionalization Scale, Part 1

INDICANTS	NUMBER OF STATES 1978	NUMBER OF STATES 1979
Amount of State Legislation Dealing Specifically with Dissemination	5	7
Agency Line Item Specific to the Function of Dissemination in the SEA	8	11
State Board Action on Dissemination Other Than Action Related to SCB Project Funding	10	12
Budgeting on an Agencywide Basis for Dissemination	10	13
Mentioning of the Function of Dissemination in the State Superintendent's Annual Report	11	11
Amount Dissemination is Mentioned in State Board Goals	11	12
Understanding of a Common Definition of Dissemination on an Agencywide Basis	12	13
Contribution of Other Federal and State Funding Sources to a Coordinated Function of Dissemination	13	15
Mentioning of Dissemination in SEA Goals	14	16
Consideration of the Dissemination Function in Regular Planning Activities in the SEA	14	21
Centralization of Management of Dissemination Activities	14	13
Planning on an Agencywide Basis for Dissemination	15	13
Function of Dissemination is Located on the Organization Chart of the SEA	17	16

Figure 5.7b. Institutionalization Scale, Part 2

activities to planning for dissemination on an agencywide basis. This may involve a temporary or permanent centralization of management, and representation of the project in executive team sessions for planning. There is usually an increase of "on-paper" commitments to a general dissemination function, including goal statements by the SEA, CSSO, and/or state board, state legislation, location of the dissemination function on the organizational chart, and an agency line item specific to the function of dissemination. Increase in funding occurs as the state specifically budgets for dissemination, utilizes funds from either Federal, state or other sources, and makes provisions for support of project activities both during and after the grant period.

When an examined state profiles on the institutionalization scale we found that, in 1979, three of the twenty-nine project states may be considered at a high stage of institutionalization: they have planning activities aimed at broadening awareness and support for the project, provisions for state and other funding, and both a refining of goals and a high degree of commitment from their state for dissemination. Thirteen states show systematic and steady growth, six have done preliminary planning and have gathered additional commitments or funding, and six are in planning stages. Two states, although showing growth, are doing so in a less systematic fashion.

When we compare the distribution of the 1978 and 1979 scales, we see that some states have either undergone a retrenchment or a decline in institutionalization. Retrenchment was indicated when a project had had state support and/or on-paper commitments, lost these, and went back to awareness, role-definition, or planning activities. Six states fit this pattern, which probably signifies that some preliminary steps had not been taken, and that these projects might have become "institutionalized" prematurely or lost their political base, which necessitated some remedial action.

Two states which had previously indicated a high degree of institutionalization declined drastically in 1979, one in its on-paper commitments, and the other in terms of commitments and funding. It is important to note that both these projects experienced a change in leadership, which appears to be a critical event in the degree to which a project survives and retains its institutionalized status.

As we have seen in the reports on the site visits, the institutionalized status of a project can change quickly with a withdrawal of political support or with a drop in potential funds. Therefore, the attainment of a particular scale score does not ensure the continuation of a project in the face of sudden changes in its environment.

Of all the analyses of the non-project states' responses to the various components, the analysis of institutionalization implies the greatest program effect. The frequency with which each indicant occurs suggests again that awareness is followed by planning and then by institutionalization of the general function. However, of the eight non-project states only about half are in the awareness stages; one fourth are beginning to plan for agencywide dissemination activities; and none have the "harder" signs of institutionalization including on-paper commitments or budget items. Therefore, although it would seem that some provision of funding must have been present in states that report a "system" either from other federal or state funding sources, this funding and the efforts of the states have not coalesced into a meaningful effort in these states.

Describing Dissemination Capacity: Summary

We have presented a broad look at the building of the dissemination capacity in project states. Each scale has presented a profile of indicants which "tap" a dimension designated as significant in our understanding of dissemination capacity. The comparison between the SCBP states and non-SCBP states has shown that those states that are in the program have more highly developed dissemination components, as indicated by: more extensive resource bases; greater coordination and cooperation with other program units in the state; more well defined linker coordination with their resource bases; and a higher degree of institutionalization. In the next section of the chapter we examine the dissemination systems in order to detect patterns of contextual or project factors which help to understand further why some states are more or less successful in developing dissemination capacity.

Explaining Variations in Dissemination Capacity: Relational Analyses

Having examined capacity building in terms of the constituant activities of each of the scales, we now need to explore more fully the relationships between capacity building efforts and the dissemination systems of the states in which these efforts are underway. In order to do this, we have quantified various aspects of capacity building projects and then examined the relationships between projects and scores on the dissemination system scales using correlational techniques. Since these relationships may also be affected by the characteristics of the state and SEA in which the project must operate, we have also quantified contextual variables and included them in the analyses.

Before describing these analyses and the results, however, there are several cautions we must give to the reader regarding the amount of credence that one can place in the conclusions that are drawn. The first major difficulty is related directly to our extremely small sample size. In 1978, 29 states (9 from Cohort I, 14 from Cohort II, 6 from Cohort III) supplied us with data, and of these, 25 (7 from Cohort I, 13 from Cohort II, 5 from Cohort III) continued to supply us with data in 1979. Ten other states (2 from Cohort IV, 6 from Cohort V, 2 non-project) also supplied us with data in 1979. With so few observations, the opportunity to observe relationships that appear uniformly in most if not all of the states is seriously impaired by the vast differences that exist between the states both with respect to state and SEA characteristics, and the unique needs and objectives that determine the direction that the capacity building project takes in each state. Put another way, the differences between the states are so extensive and so profound that many more observations would be required before the true relationships between context, project conditions, and dissemination system would no longer be obscured.

The second major difficulty also pertains to the lack of available data. Not only was the number of states that we could observe extremely limited, but we were only able to collect information in the fall of 1978 and 1979. In fall of 1978 the 20 states in the first two cohorts had been in the SCBP program for at least three years and Cohort III states for two years. Consequently, we are deeply concerned that any impact that the SCBP project had on the dissemination systems in these states occurred before we collected our data. For the first three cohorts, we did not have baseline information collected prior to the inception of the SCBP program in these states. Consequently, not only were we in a difficult position to assess the relationships between the capacity building projects and the dissemination system in most of the states, but we also had little information with which we could describe a state's dissemination system before and after an SCBP project was implemented.

This problem is of particular concern in the analyses which are presented in the following sections. For example, our estimate of the effect of the length of time in the program can be estimated only by a change over a one year period. Cohorts differ not only in terms of the number of years they have been in the program, but they may differ also in terms of the characteristics of the states. Therefore, the effects of the number of years in the program may be confounded with cohort effects. Unfortunately we do not have the information needed to assess the strength of this possible confounding. Volume IV, Special Study of the Development of Scales Measuring Dissemination Capacity, is an attempt to investigate the effects of cohort and age in programs. In that study, confounding effects are seen; for instance, Cohort III (measured at Year 1 and Year 2 in program) behaves in some non-anticipated ways on some scales. Thus, the effects of some variables will vary between the years of measurement which in part may reflect differences between cohorts or differences which may be related to the number of years in the program. This is particularly the case due to the approaching termination of the grants program for some cohorts which may result in a retrenchment of activities to meet the anticipated realities of the loss of financial support.

It is a plausible hypothesis that cohort states differ in their characteristics. Cohorts I, II and III were compared in relation to their state contexts and no significant differences were found. However, it is entirely possible that differences between individual cohorts are averaged out in the analysis, or that the states differ in ways other than those used in the comparison.

A third problem was that in some cases the respondents to our instruments in 1978 were replaced by other respondents in 1979. Typically, this was because the project director had changed.

In light of these problems, therefore, we must caution the reader to regard the analyses and results reported in the remainder of this chapter as tentative suggestions as to what the true relationship between various project characteristics and various aspects of state dissemination systems might be. We would certainly never suggest that policy decisions be based solely on these analyses. Where these analyses and results are consistent with the other findings that we have already described in this chapter or in the case studies chapter, however, we believe that the information is sufficiently valid to be used for policy making.

In recognition of these problems, we have limited our discussion to results pertaining to resource base capacity, coordination, establishment of a linkage system, and institutionalization. These are the dissemination system facets that relate most directly to the major goals established for SCBP projects. Given our concern with the data, we do not believe that consideration of all of the dissemination system scales and their correlates would be productive.

Analytic Approach

The contextual and project variables selected for analysis are presented below. The particular importance of these variables emerged from the information gained from our site visits and a review of the literature on dissemination and educational change. The variables are presented as sets, or domains, of variables within which there are other items which define that variable domain.

- Prior Capacity:

    - Rated capacity or experience of the state in dissemination activity--Prior experience of the state in the development and/or use of resource base, a linkage system (linkers) and past involvement in other dissemination projects (such as NDN, the Pilot States Project, etc.) was used to generate a rating of each state's capacity prior to involvement in the SCBP project. Such capacity could provide a base for the further development of a dissemination configuration with SCBP funds.

    - The state of the dissemination system as measured by the 1978 scale scores--Scale scores from 1978 could be used to predict scale scores from 1979. For example, the extent to which a resource base was developed by 1978 may have an effect upon the continued development of the resource base in 1979. Thus, if basic national data files (e.g., ERIC, NTIS) were operational in 1978 we might expect that work would progress on developing promising practices files for 1979.

- State and SEA Contextual Characteristics

    - Size of the state, as measured by the number of schools--We expect that the needs of large versus small states would be different and thus result in different dissemination configurations.

    - Influence of the SEA in initiating local school improvements--The structure and operations of the dissemination configuration might differ depending upon the degree to which an SEA is involved in and supports local school improvement processes. This may influence also the extent to which the state supports and eventually assists in the institutionalization of a dissemination configuration.

    - Centralization of the SEA--A highly centralized SEA could indicate greater power and control over educational matters in the state with corresponding little autonomy at the local level. To the extent that states may vary along this dimension we would expect that the SEAs would have a differential influence on the development and utilization of dissemination capacity.

- Project Characteristics

    - The approach used by the project to achieve a comprehensive dissemination system; specifically whether the project targeted clients for service or adopted a generalized client approach--A focus upon a particular client group may assist the project in making an impact upon a recognized constituency thereby demonstrating the significance of the dissemination system, rather than dispersing its resources to meet the needs of clients in general.

    - Type of unit in which the project was placed, that is whether the project was placed in an administrative or service unit--Placement in administrative unit may enhance the project ability to coordinate with other parts of the SEA while placement in a service unit may enhance the projects ability to work with service providers in the SEA who interact more directly with local school systems.

  - How the project has made itself known both inside and outside of the SEA; specifically how the project has attempted to spread information about its services through such means as publicity and/or communications targeted to specific client groups--The extent to which potential clients are aware of project services will have a strong bearing on utilization of dissemination capacity.

  - How the project has made itself known both inside and outside of the SEA; specifically how the project has attempted to spread information about its services through such means as publicity and/or communications targeted to specific client groups--The extent to which potential clients are aware of project services will have a strong bearing on utilization of dissemination capacity.

- Project Longevity, that is, number of years in the SCBP Program--We expect that the more the number of years in the program, the more developed the components of the dissemination system. In a classical experiment this would serve as a measure of the amount of treatment.

We performed simple bivariate correlational analyses and then multiple regression analyses to assess the relationship between each dissemination component (i.e., scale) and these four sets of variables, as well as other variables in our data base.

The bivariate correlations provided a general understanding of the interrelationships between our dependent variables (the scale scores measuring capacity) and many independent variables describing state, SEA, and project characteristics. However, to rely only on simple correlations, when there were a large number of independent variables, would have two major limitations:

- There would be an increased possibility of spurious correlations, where an association between an independent variable and a scale score might be the result of the independent variable's association with some other independent variable that was the true predictor of the scale score. For example, a positive relationship between comprehensive resource base and number of years that the project director had served on the project might result from the high correlation of project director tenure with project longevity, which was probably the true predictor of the comprehensiveness of the resource base.

- There might be possible suppressor relationships, where the correlation between an independent variable and a scale score did not show a relationship, even though it was predicted, because another variable (or variables) was hiding the relationship. For example, project longevity might not show a positive relationship with comprehensive resource base because number of years may be negatively related to placement in an administrative unit, which is positively related to the comprehensiveness of the resource base.

Using multiple regression procedures, therefore, we measured both the (1) overall effect of our chosen set of explanatory and/or policy relevant variables for each scale; and (2) the unique contributions of a particular variable or set of variables on each scale score, while controlling for the variation of the other sets of variables. The results of the multiple regression analyses informed us of the relative and unique contributions of the most relevant variables from our conceptual framework in explaining variation in the scales measuring dissemination capacity.

For each dissemination component, we performed multiple regression analyses to assess the effects of the independent variables on three sets of scale scores: (1) 1978 scale scores for Cohorts I, II and III; (2) 1979 scale scores for Cohorts I, II and III; and (3) 1979 scale scores for Cohorts I, II, III, IV, and V (the 2 non-project states were not included since they would have no project information).

For each set of scale scores, the unique contribution of each variable domain to the total variance of each scale score was computed using a two-step process. In the first step, we assessed the contribution of three of the four variable domains in the regression solution; in the second step, we assessed the contribution of all four domains. We then assessed the fourth domain's unique contribution by subtracting the contribution of the three domains in the first step from the total contribution of all four domains. We followed this procedure to assess the unique contribution of each of the variable domains.

In some cases, we do discuss the simple bivariate correlations of this chapter, but only when these results seemed to be consistent with other information that we had obtained in site visits.

Relationships Across Variable Domains

In this section we draw upon and summarize the findings presented in the subsequent section in order to assess the contributions of each of our variable domains to explaining variation in the growth of dissemination capacity and in order to identify the key determinents of capacity. We once again caution the reader to be mindful of the data problems described in the previous section, and to view this discussion as suggestions, rather than statements, of what might be true relationships.

Prior Dissemination Capacity

Based upon information gained in the site visits we believed that the influence of past experience with federally-financed dissemination efforts should have provided a base of experience upon which states could further develop their dissemination capacity. Consequently, we expected that states with more experience would develop their capacity more quickly and more extensively than states with less experience. However, the analysis showed only moderate relationships between prior capacity and growth of a dissemination system.

Prior capacity, as measured by the SEA's involvement in other Federal dissemination efforts,* primarily influenced the comprehensiveness of Program linkages, the coordination of linkages and coordination of the resource base. This might suggest the following:

1. Past involvement primarily affected the degree to which the various elements of an SEA began to work together; the SCBP project may have been enhanced by an environment in which there was a set of program and dissemination specialists already acquainted with dissemination activities.
2. While comprehensiveness of linkages and coordination were predicted by prior capacity, project characteristics and participation in the program also had an effect, which indicated that the SCBP enhanced an already operational system that had gotten some of the pieces together.
3. Finally, other components of the dissemination system might have been associated with prior capacity at project start-up, but the project served as a leveling effect, thereby negating the differences between cohorts of states. Since we did not have a chance to study all states from the start of the grant period we could fully test this hypothesis. However, we do know that some of the experiences of the early cohorts were shared with later cohort states allowing these later states to have advantages in their planning and implementation of their projects.

State Context

In general, the regression analyses indicated that several scales were related to the degree to which the state's educational system is both highly centralized and small (in terms of number of schools), and the lack of influence that the SEA was judged to have in affecting change at the local level; these characteristics either occurred singly or in conjunction with each other.

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* For set (1) 1978, prior capacity was measured using the rated capacity variable; for set (2)1979, prior capacity was measured using the 1978 scale scores. For set (3) 1979, all cohorts, prior capacity was not used in the analyses, since the 1979 scale scores represented the prior capacity of the states in Cohort V.

The scales thus influenced were the comprehensiveness of local linkages/ linkers, the comprehensiveness of Program linkages, and coordination of linkages and resource base. One might conclude that states which are characterized by a small or centralized system would be able to incorporate various elements at the SEA level (i.e., personal linkages and coordinating resource bases and linkages) more easily than large or decentralized SEA. In addition, states with relatively less involvement in producing change at the local level might funnel money to local personnel to conduct resource finding types of activities rather than developing cadres of generalists at the SEA level. This would allow such states to provide resources rather than become part of a proactive approach to influencing change in local school practices.

On the other hand, we found that the comprehensiveness of the resource base and the comprehensiveness of linker activities were related to states that were both large and less centralized. This finding helps to complete the picture. States having these characteristics are more likely to have structures which enhance local activities and, thus, are better able to be comprehensive in scope, rather than coordinated across programs.

Project Characteristics

In general, all components of a dissemination system were enhanced when a project began providing services by following a targeting approach with respect to clients served, and then generalizing its services to a wider base of clients. In addition, almost all the scales (with the exception of coordination of the resource base) were associated with the use of targeted communications. These two findings indicate the importance of targeting activities and strategies, and further analyses indicate some reasons for this:

1. In some states, the project targeted particular local client groups, and this indicated to significant others in the SEA that the project, at its early stages, met specific needs, perhaps by filling a void in the SEA's repertoire of functions and activities. Working from this base, these projects then could expand, because they had "proven their worth" and had carved out a place for themselves in the SEA.

2. In other states, coordination of existing dissemination efforts and institutionalization of the program's activities were early objectives, and early targeted groups were key actors within the SEA itself who became involved in planning for disseminatton. This allowed the project to develop a power base.

Project placement had varying effects. If a project was placed in an administrative unit, it was more likely to have a more highly developed resource base, in terms of comprehensiveness and coordination, and a greater number of Program linkages. A project placed within a service unit was more likely to have a more highly developed linkage component, in terms of comprehensiveness of local and media linkages, and more likely to be related to the project's institutionalization.

These results suggest that where a project is placed within the SEA structure may influence the development of different dissemination capacities. Projects placed in administrative units tend to enhance resource coordination which would possibly parallel the unit's usual orientation, i.e., interacting with other program units at the SEA level. A service unit, however, might think in service- oriented ways, and therefore enhance ways to serve local clientele.

Project Duration/SCBP Membership

The last domain measured the effects of years in the Program. The results indicated that years in program was not a predictor of the extent of growth of dissemination capacity for states in the first three cohorts. This finding, we suggest, is understandable in terms of the leveling effect of program membership, that is most of the growth occurs during the first two years in the project, so that by Fall, 1979, Cohort III had "caught up" to the earlier two cohorts.[5.7]

When all of the cohorts were analyzed, however, all the scales except Comprehensiveness of Program Linkage showed that years in the Program enhanced the capacity of dissemination systems over and above the contribution of prior capacity and state and system characteristics. This finding further substantiates our conclusions of the positive effect of the State Capacity Building Program.

Relative Growth of Components

An examination of the relative growth of components with respect to degree of association with project membership indicated that the coordination of linkers was by far the most enhanced by the Program, followed by institutionalization, comprehensiveness of the resource base, and comprehensiveness of media linkages. This may indicate that the major inputs of the Program are to assist in coordinating the pieces of the dissemination system, (i.e., the linkers, resource base, and Program linkages), to develop the comprehensiveness of resources and media that can be used as information conduits, and to help a state in institutionalizing the dissemination function.

Relationships Across Dissemination Scales

Having summarized the relationships between the scales and the variable domains, we describe the results in much more detail in this section. The results are presented scale-by-scale, so that the relative influence of each of the domains on each scale can be assessed. For each scale, a table showing the relative strength of each component's association with the scale scores in each of the three sets of analyses is presented. The information from the analyses based on the 1978 data of Cohorts I, II, and III appears at the top of each table, while the infromation from the analyses based on 1979 data of Cohorts I, II, and III appears in the middle, and the information from the analyses based on the 1979 data of all five cohorts appears at the bottom. For each of the three sets of analyses, the percentage of variance in the scale score that can be uniquely associated with each component is presented at the top, while the partial correlations of the scale score with each variable in the components appears below. For instance, an inspection of Table 5.4 shows that for Cohorts I - III in 1978, the comprehensive resource base scale had 53% of its variance associated with all four components together; 3% of its variance was uniquely associated with prior capacity, 10% with contextual characteristics, 36% with project characteristics, and 6% with years in the Program. Of the contextual characteristics variables, school centralization had the strongest, albeit negative, association with comprehensiveness as reflected by a partial correlation of -.40 (-1.00 or 1.00 indicate the presence of a complete association while .00 indicates the absence of any association whatsoever). The reader may notice that the four unique percentages (55%) run to more than the total percentage (53%). This phenomenon is called suppression and occurs when the predictor variables (e.g., the variables in the four components) are all associated with some underlying factor, but the criterion variable (e.g., the scale score) is not associated with that factor. Thus, when all the variables are used to predict the scale score, this factor tends to diminish the strength of the association. On the other hand, when the unique association is computed, the associations with the other components are first statistically removed. By removing these components, the effects of the extraneous factor are also removed, and the strength of the association between the scale score and the remaining component is enhanced. Fortunately, the size of the suppression effects in the analyses described in this chapter were all quite small, so we can dismiss the presence of suppression in our analysis as a statistical oddity

Table 5.4

Comprehensive Resource Base
1978 - Cohorts I, II, III

Percentage or Variance	All Components	Prior Capacity Component		Contextual Characteristics Component		Project Characteristics Component		Years in Program Component	
	53%	3%		10%		36%		6%	
Partial Correlations		Rated Capacity	.24	SEA Influence	.16	Targeting Clients	-.14	Number of Years	.33
		(or)		School Centralization	-.40	Placement in Service Unit	-.43		
		1978 Capacity	x	Number of Schools	-.04	Placement in Admin. Unit	.42		
						Targeted Communications	.35		

1979 - Cohorts I, II, III

Percentage or Variance	All Components	Prior Capacity Component		Contextual Characteristics Component		Project Characteristics Component		Years in Program Component	
	27%	9%		3%		15%		0%	
Partial Correlations		Rated Capacity	x	SEA Influence	-.04	Targeting Clients	-.37	Number of Years	-.01
		(or)		School Centralization	.11	Placement in Service Unit	.19		
		1978 Capacity	.33	Number of Schools	-.15	Placement in Admin. Unit	.01		
						Targeted Communications	.14		

1979 - All Cohorts

Percentage or Variance	All Components	Prior Capacity Component		Contextual Characteristics Component		Project Characteristics Component		Years in Program Component	
	25%	x		1%		11%		16%	
Partial Correlations		Rated Capacity	x	SEA Influence	.04	Targeting Clients	-.25	Number of Years	.42
		(or)		School Centralization	.10	Placement in Service Unit	-.02		
		1978 Capacity	x	Number of Schools	-.01	Placement in Admin. Unit	.20		
						Targeted Communications	.00		

with no real implications for the interpretation of the results. In the presentation of each dissemination scale, we first discuss the variable domain(s) that uniquely accounted for the greatest percentage of the total variance of the scale scores. Then we discuss the significant variables within that domain, as assessed by the value of the partial-correlation coefficient (r) for each variable. Finally, we report any significant variables within other domains that accounted for a substantial amount of the variance (approximately 10%) after the other three domains already in the equation have been partialled out. When appropriate, significant bivariate correlations that added to our understanding of the regression findings are also presented.

Comprehensive Resource Base

The comprehensive resource base scale, presented in Table 5.4, describes the extensiveness of the resource collection. The elements include ERIC and other national files which most states had, validated programs and promising practices files which some states had, and human resources and legislative files which only a few states had.

In 1978, the comprehensiveness of the resource base was strongly associated with project characteristics. Out of the set of project characteristic variables, the ones with major partial correlations were; placement in an administrative unit; *non*-placement in a service unit; and utilization of targeted communications. The association between comprehensiveness and administrative unit placement could perhaps be attributed to such placement providing projects with the authority to combine resources from a variety of locations. The tendency for more comprehensive resource bases to be associated with projects that used targeted communications to publicize services probably means that advertising and service go hand-in-hand. Our site visits indicated that projects typically began full-scale advertising of available services after they'd developed a relatively comprehensive set of resources. Of the remaining components in the conceptual framework, context also had a moderate association with comprehensiveness of the resource base. This was almost completely attributable to the partial correlation involving SEA centralization; the more comprehensive resource bases were associated with SEAs in which there was less centralization and a higher degree of local autonomy. It is likely that to better serve clients at the local level, such states included many local files (i.e., local exemplary programs, local human resources) in their resource base. Years in program also showed a moderate association with comprehensiveness, indicating that states with older projects tended to have more resources.

In 1979, comprehensiveness was again associated with project characteristics although the magnitude of this association was considerably less than in 1978. Comprehensiveness was also moderately influenced by the degree of comprehensiveness in 1978. Out of the set of project characteristics variables, the use of a generalized client approach (i.e., not targeting clients) had the highest partial correlation. It appears that projects who serve all clients developed a more comprehensive set of resources to meet a wide variety of needs.

The simple bivariate correlational analysis indicated that comprehensiveness was also enhanced when the resource base was located exclusively in the SEA which may have made it easier to include other collections of SEA resources in the resource base. Comprehensiveness was also related to the degree of linker experience and the contributions of Federal funds to the linker component. This seems to imply that a project that had a preexistent linker component supported through other Federal dissemination efforts was able to allocate resources to building its resource base. Conversely, a project with a more comprehensive resource base focused on maintaining existing resources and developing hot topic packages, rather than continually adding new resources. Unlike 1978, years in program showed no association with comprehensiveness, suggesting that Cohort III had "caught up" after two years in the program.

When states from all five cohorts were combined, the influence of years in the project was substantial, the Cohort IV and V states were clearly well below the states in the first three cohorts.[5.8] As in the other analyses, project characteristics were strongly related to comprehensiveness. As was the case with Cohorts I, II, and III in 1978, the more comprehensive a resource base the greater the chance that the project was located in an administrative unit. As was the case with Cohorts I, II, and III in 1979, comprehensiveness was associated with a generalized client approach to service.

Coordinated Resource Base

The coordinated resource base scale, presented in Table 5.5, describes a spectrum of behavior beginning with an awareness and identification of the various programs and educational units which could become part of the resource base in the SEA and LEAs, and leading to the development of procedures which assure the availability of these resources to clients.

In 1978 the coordination of the resource base was strongly associated with contextual and project characteristics which reflect organizational structures that provide leverage needed to achieve coordination between independent units and programs of the SEA. The relationships between higher coordination and higher SEA centralization and placement of the project in an administrative unit support this interpretation. Strategic placement in an administrative unit supported by higher centralization in the SEA may provide the project with the contacts and the "clout" to establish cooperative ties with other units in the SEA.

Table 5.5

Coordinated Resource Base

1978 - Cohorts I, II, III

	All Components	Prior Capacity Component	Contextual Characteristics Component	Project Characteristics Component	Years in Program Component
Percentage or Variance	58%	9%	21%	37%	0%
Partial Correlations		Rated Capacity .41 (or) 1978 Capacity x	SEA Influence -.08 School Centralization .58 Number of Schools .04	Targeting Clients .31 Placement in Service Unit .10 Placement in Admin. Unit .45 Targeted Communications .13	Number of Years .03

1979 - Cohorts I, II, III

	All Components	Prior Capacity Component	Contextual Characteristics Component	Project Characteristics Component	Years in Program Component
Percentage or Variance	62%	2%	19%	22%	1%
Partial Correlations		Rated Capacity x (or) 1979 Capacity .18	SEA Influence -.49 School Centralization -.11 Number of Schools -.32	Targeting Clients -.56 Placement in Service Unit .16 Placement in Admin. Unit -.19 Targeted Communications .24	Number of Years -.16

1979 - All Cohorts

	All Components	Prior Capacity Component	Contextual Characteristics Component	Project Characteristics Component	Years in Program Component
Percentage or Variance	43%	x	18%	11%	9%
Partial Correlations		Rated Capacity x (or) 1979 Capacity x	SEA Influence -.45 School Centralization -.10 Number of Schools -.19	Targeting Clients -.33 Placement in Service Unit .01 Placement in Admin. Unit .12 Targeted Communications .23	Number of Years .38

Furthermore, projects who target specific clients rather than attempting to serve a wider selection of educators within the state's system are more likely to achieve a higher coordination of resource bases. This suggests that coordination is probably easier to achieve when a project serves a more limited clientele group which in turn provides a basis for establishing relationships with these units in the SEA who are also serving these groups. For example, some projects specifically orient their services to handicapped populations. Since the SCBP can augment, or in many cases take over, some of the dissemination tasks of the unit serving the handicapped population, cooperation is more readily achieved that unit can see that there is a direct payoff for their cooperation (usually with no loss of power). Another interpretation which extends this argument is that the target clients may be other units or programs at the SEA level. That is, when the SCB project uses a strategy of providing dissemination services for particular clients at the SEA level, those units will be more willing to coordinate with the project.

In 1979, the coordination of the resource base was again associated with contextual and project characteristics. In contrast to the findings for 1978, projects were achieving greater coordination of the resource base in 1979 through the use of a more generalized client approach. Projects appeared to target services to clients, and then to extend their services to a more general group of educators in the state. This may reflect the maturity of the project and be a natural development in building of capacity of the dissemination system.

In 1979, a greater degree of coordination is found in smaller states and in states which do not strongly foster SEA involvement in educational change. Since the same states are in the analyses for both years, it is difficult to explain the emergence of these contextual factors. Therefore, it may be that as projects develop their capacity different factors become significant. As the level of coordination progresses, states that are smaller in size tend to find it easier to achieve greater coordination. The data also indicate that projects located in states which have less SEA involvement in educational change, have an additional impetus to coordination. In such states, the project's activities assisting the client with information access and use may be an attempt to compensate for the SEA's minimal involvement.

The coordination of the resource base is also facilitated when the resource base is located exclusively in the SEA. The further away from the project's supervision (for example, located within an institute of higher education), the less likelihood of its being coordinated with other collections of resources within the SEA.

When states from all five cohorts were combined, the results of the regression analysis indicated that context, system characteristics, and participation in the Program were all associated with coordination of the resource base. The influence of the SEA again had a major negative association, while a generalized client approach again had a positive asociation. As was the case with resource base comprehensiveness, the membership in the SCB program appears to contribute to the development of a more coordinated resource base, but to a lesser extent. This, combined with the absence of any sort of association in either of the Cohort I-III analyses, suggests that coordination may recur within a year of a state's association with the program.

Comprehensive Program Linkages

The comprehensive Program linkages scale, presented in Table 5.6, describes the extent to which a number of different linker groups are involved in the dissemination system. Among these three groups are: (1) dissemination specialists, including resource base staff, NDN staff, and Title IV-C staff; (2) program-specific specialists, including staffs of Title I, handicapped education, early childhood education, adult education, and other programs; and (3) state library system staff.

In 1978, the comprehensiveness of Program linkages was primarily associated with project characteristics. As was the case with resource base comprehensiveness, the comprehensiveness of Program linkages was associated with project placement in an administrative unit, once again suggesting that such a location provides projects with the authority needed to utilize a variety of individuals as linkages to help make clients aware of available services and provide needed resources. Comprehensiveness was associated, also, with projects that followed a targeted client appproach.

In 1979, the comprehensiveness of Program linkages was again primarily associated with project characteristics, although contextual characteristics also had a substantial association. Within the project characteristics domain, the number of linkages was positively related to the degree to which the project targeted communications and generalized its services to all clients.

Years in the program was also moderately associated with comprehensive Program linkages, although the absence of an association in 1978 makes any interpretation of this linkage questionable. Thus, the same shift in the pattern of association (from a targeted approach in 1978 to a generalized approach with widespread advertising of available services in 1979) which occurred in developing coordinated resources also reappeared in developing comprehensive Program linkages. Within the contextual component, the degree of SEA centralization the major variable which may suggest that the more centralized SEAs are in a stronger position to establish relationships with their program staff, thereby increasing the program linkages.

Table 5.6

Comprehensive Personal Linkage

1978 - Cohorts I, II, III

	All Components	Prior Capacity Component	Contextual Characteristics Component	Project Characteristics Component	Years in Program Component
Percentage or Variance	34%	3%	3%	30%	0%
Partial Correlations		Rated Capacity .21 (or) 1978 Capacity x	SEA Influence -.11 School Centralization .20 Number of Schools -.04	Targeting Clients .29 Placement in Service Unit .03 Placement in Admin. Unit .34 Targeted Communications -.12	Number of Years .07

1979 - Cohorts I, II, III

	All Components	Prior Capacity Component	Contextual Characteristics Component	Project Characteristics Component	Years in Program Component
Percentage or Variance	65%	5%	24%	57%	7%
Partial Correlations		Rated Capacity x (or) 1978 Capacity .37	SEA Influence -.17 School Centralization .60 Number of Schools -.17	Targeting Clients -.41 Placement in Service Unit .15 Placement in Admin. Unit .24 Targeted Communications .48	Number of Years .42

1979 - All Cohorts

	All Components	Prior Capacity Component	Contextual Characteristics Component	Project Characteristics Component	Years in Program Component
Percentage or Variance	50%	x	15%	22%	9%
Partial Correlations		Rated Capacity x (or) 1978 Capacity x	SEA Influence .12 School Centralization .42 Number of Schools -.10	Targeting Clients -.32 Placement in Service Unit .03 Placement in Admin. Unit .26 Targeted Communications .37	Number of Years .39

The simple bivariate correlational analysis indicated that comprehensiveness was also associated with the involvement of the project director in the original grant procurement. This probably suggests the presence of entrepreneurial leadership or strong project leadership in forging links with others in the SEA.

When states from all five cohorts were combined, all three components had moderate associations with comprehensiveness. The major variables within project characteristics were again the targeting of communications and a generalized client approach. Within the context domain, the degree of SEA centralization was again the major variable. All these correlations reinforce those found for project states with the more comprehensive Program linkages in 1979. The association with membership in the Program was only 9%, but it once again suggests a program effect, that is SEAs participating in the program were likely to have established more linkages.

Comprehensive Media Linkages

The comprehensive media linkages scale, presented in Table 5.7, describes the extent to which a variety of media, including the print-based materials (e.g., publications, newspapers) and electronic devices (e.g., slides, films, audio-visual materials, educational television) are used by projects to create an awareness of available services or to deliver specific information. Earlier in this chapter, we speculated that media linkages had a dual function as a vehicle for publicity purposes and as a vehicle for delivering information. The correlations of the 1978 and 1979 media linkages scales with other scale scores and contextual and project characteristics seem to indicate that the function of media linkages shifts from publicity to serving as a vehicle for information delivery. For example, in 1978, the comprehensiveness of media linkages was

Table 5.7

Comprehensive Media Linkage

1978 - Cohorts I, II, III

	All Components	Prior Capacity Component	Contextual Characteristics Component	Project Characteristics Component	Years in Program Component
Percentage or Variance	30%	1%	24%	6%	0%
Partial Correlations		Rated Capacity .16 (or) 1978 Capacity x	SEA Influence -.30 School Centralization .41 Number of Schools -.25	Targeting Clients .22 Placement in Service Unit .21 Placement in Admin. Unit .01 Targeted Communications .00	Number of Years .07

1979 - Cohorts I, II, III

	All Components	Prior Capacity Component	Contextual Characteristics Component	Project Characteristics Component	Years in Program Component
Percentage or Variance	37%	4%	0%	18%	0%
Partial Correlations		Rated Capacity x (or) 1978 Capacity x	SEA Influence -.05 School Centralization .07 Number of Schools -.07	Targeting Clients -.25 Placement in Service Unit .27 Placement in Admin. Unit -.17 Targeted Communications .31	Number of Years -.04

1979 - All Cohorts

	All Components	Prior Capacity Component	Contextual Characteristics Component	Project Characteristics Component	Years in Program Component
Percentage or Variance	40%	x	6%	17%	15%
Partial Correlations		Rated Capacity x (or) 1978 Capacity x	SEA Influence -.09 School Centralization .21 Number of Schools -.22	Targeting Clients -.23 Placement in Service Unit .18 Placement in Admin. Unit -.08 Targeted Communications .39	Number of Years .44

associated with the scale measuring comprehensive program linkages and reflected the fact that media appeared to be directed primarily towards SEA staff in various programs to create awareness of project services. In 1979, comprehensive media linkages was associated with the comprehensiveness of the resource base, which lends plausibility to our hypotheses that the function of media shifted to a vehicle of information delivery.

In 1978, the comprehensiveness of media linkages was primarily associated with contextual characteristics. Within this component the, comprehensiveness of media linkages was associated with SEA centralization, and negatively associated with the influence of the SEA and size. In 1979, the comprehensiveness of media linkages was primarily associated with project characteristics, including the use of targeted communications, placement in a service unit, and serving a general client group.

The simple bivariate correlational analysis indicated that in 1979, comprehensiveness of media linkages was associated with the development of hot topics and other media presentations, and to a lesser degree with targeted communications aimed at professional educators who deal with minorities, women and the disadvantaged. A highly significant relationship was found between the comprehensiveness of media linkages and resource base funding from other federal sources, as well as a higher average level of funding. This indicates that with additional monies, projects create and then incorporate such media resources as slide-tape shows and films into resource repertoire, rather than relying solely on print-based materials. Our site visits revealed examples of this approach. In addition, media linkages were highly correlated with linker (i.e. human change agents) behaviors who, in meeting the needs of their clients, tend to rely on media linkages as handy and efficient tools.

When states from all five cohorts were combined, both project characteristics and years in program were associated with comprehensiveness. Within the project characteristics component, the targeting of communications and the use of a generalized client approach once again were the major variables. The strong association with years in program, coupled with the absence of such an association in both Cohort I-III analyses, suggests that the comprehensiveness of media linkages is influenced by participation in the program only during the first year.

Coordinated Linkages

The coordinated linkages scale, presented in Table 5.8, describes the extent of the coordination of the linkers utilized by the project with the resource base and with other organizations and programs in the educational system.

In 1978, the coordination of linkers with the resource base and with other programs was associated with contextual and project characteristics, as well as prior capacity. The more centralized SEAs and larger states tended to have more coordinated linkages. Centralization probably made it easier to coordinate linkages; larger geographic size probably made it more necessary.

In 1979, the coordination of linkers again was associated primarily with contextual and project characteristics. Coordination was negatively associated with SEA influence, and was positively associated with targeted communications and placement in a service unit. Thus, in 1979, more coordinated linkages tended to occur when SEAs exhibited a limited influence in initiating local educational improvements. In such cases, we hypothesize, projects were forced to develop alternative ways to get new and improved practices into local school and hence were faced with a need to coordinate linkers in a variety of locations with available programs and resources.

Table 5.8

Coordinated Linkage

1978 - Cohorts I, II, III

	All Components	Prior Capacity Component	Contextual Characteristics Component	Project Characteristics Component	Years in Program Component
Percentage or Variance	42%	10%	18%	16%	4%
Partial Correlations		Rated Capacity .38 (or) 1978 Capacity x	SEA Influence .15 School Centralization .38 Number of Schools .29	Targeting Clients .41 Placement in Service Unit .16 Placement in Admin. Unit .07 Targeted Communications -.05	Number of Years -.26

1979 - Cohorts I, II, III

	All Components	Prior Capacity Component	Contextual Characteristics Component	Project Characteristics Component	Years in Program Component
Percentage or Variance	41%	1%	31%	19%	4%
Partial Correlations		Rated Capacity x (or) 1978 Capacity .16	SEA Influence -.57 School Centralization -.03 Number of Schools .23	Targeting Clients .02 Placement in Service Unit .30 Placement in Admin. Unit -.08 Targeted Communications .30	Number of Years -.25

1979 - All Cohorts

	All Components	Prior Capacity Component	Contextual Characteristics Component	Project Characteristics Component	Years in Program Component
Percentage or Variance	50%	x	12%	11%	26%
Partial Correlations		Rated Capacity x (or) 1978 Capacity x	SEA Influence -.37 School Centralization .06 Number of Schools -.31	Targeting Clients .19 Placement in Service Unit -.12 Placement in Admin. Unit .22 Targeted Communications .33	Number of Years .59

The simple bivariate correlational anslysis indicated that coordination of linkages was more likely to occur in states that had not made an attempt to build a maximally comprehensive resource base. The coordination of linkages was highly related to the number of program linkages in 1978, but this relationship was negative in 1979, indicating that, for unknown reasons, projects that tended to drop the number of relationships established with other organizational units were the ones that remained more coordinated. It may be that these projects began with a vision of coordinating a great number of linkages, then realized that such an approach was not realistic and retrenched. Again, with a comparatively less comprehensive system, the ability to coordinate resource base elements and linkage may increase, thereby adding equilibrium to the system (i.e., it runs smoothly); but the tradeoff may be that the project might tend to drop linkages with program people at the SEA, who they may need in the long run in order to remain institutionalized.

We found that higher degrees of coordination occurred in projects that utilized cadres of SEA- or IEA-linkers (for example, in Rhode Island and Kansas), employed more full-time linkers, and were in states that had a higher absolute number of school districts (i.e., irrespective of enrollment statistics). These findings suggest that it is relatively easy to coordinate linkers who are more within the project's auspices and it is necessary to achieve coordination if a dissemination system is to run smoothly. We also found that the coordination of linkages occurs more readily when the project first follows a targeted client approach; this makes intuitive sense, since the linker can establish a relationship with those resources and specific staff most relevant to the needs of a particular subset of the client population.

Table 5.9

Institutionalization

1978 - Cohorts I, II, III

	All Components	Prior Capacity Component	Contextual Characteristics Component	Project Characteristics Component	Years in Program Component
Percentage or Variance	58%	2%	7%	47%	1%
Partial Correlations		Rated Capacity .19 (or) 1978 Capacity x	SEA Influence .24 School Centralization .18 Number of Schools .28	Targeting Clients .53 Placement in Service Unit .29 Placement in Admin. Unit .13 Targeted Communications .51	Number of Years .16

1979 - Cohorts I, II, III

	All Components	Prior Capacity Component	Contextual Characteristics Component	Project Characteristics Component	Years in Program Component
Percentage or Variance	63%	10%	10%	40%	3%
Partial Correlations		Rated Capacity x (or) 1978 Capacity .47	SEA Influence -.44 School Centralization .10 Number of Schools -.29	Targeting Clients -.40 Placement in Service Unit .23 Placement in Admin. Unit -.33 Targeted Communications .48	Number of Years -.27

1979 - All Cohorts

	All Components	Prior Capacity Component	Contextual Characteristics Component	Project Characteristics Component	Years in Program Component
Percentage or Variance	41%	x%	4%	16%	20%
Partial Correlations		Rated Capacity x (or) 1978 Capacity x	SEA Influence -.21 School Centralization .13 Number of Schools -.10	Targeting Clients -.15 Placement in Service Unit -.09 Placement in Admin. Unit .04 Targeted Communications .43	Number of Years .49

When the states from all five cohorts were combined, years in the Program had the strongest association with coordination of linkers. The attempt to link together all the pieces of an SEA dissemination system may, in fact, be one of the major effects of participation in the State Capacity Building Program, and tends to occur early in the project.

Institutionalization

The institutionalization scale, presented in Table 5.9, describes the extent to which a project's functions and activities have been incorporated into the dissemination system for school improvement. In both 1978 and 1979, the primary influences on institutionalization were program characteristics, accounting for 47% and 40% of the total variance in each respective year.

In 1978, institutionalization was strongly associated with the use of a targeted client approach and targeted communications. In 1979, institutionalization was associated with serving a generalized clientele, targeting communications, and placement in a service, rather than administrative, unit. It is interesting to note that, based on the analyses of the other scales, building dissemination capacity tends to be enhanced by placement in an administrative unit, whereas institutionalizing that capacity is enhanced by placement in a service unit.

The simple bivariate coorelational analysis indicated five major factors which contribute to the institutionalizing of dissemination capacity. First, projects that were further along in the institutionalization process were those that began by providing services to a limited clientele (i.e., targeted clients), and then shifted to providing services to serve a wider base of potential clients. This may suggest that it is better to begin a new enterprise on a carefully controlled, small scale basis before branching out to cover everyone one wishes to serve.

Second, stability of leadership, in terms of length of employment by a project director who was involved in the original grant proposal, was strongly associated with the degree of institutionalization. This suggests the importance of the project director whose identity is associated with the project. As stated earlier in this chapter, the change in leadership in the past year in two states was associated with what appeared to be noticeable declines in the prospects for institutionalization.

Third, institutionalization was related to the utilization of publicity and targeted communications, which, along with highly significant relationships with the comprehensiveness of media linkage scales, reinforced the importance of media for making the project known within and outside the SEA. Projects used such vehicles as brochures, flyers, and media presentations to explain and advertise their services. In addition, projects developed targeted communications directed towards educators who served particular populations and developed hot topic packages.

Fourth, documentation of planning for the dissemination system as a part of the SEA services is a step which facilitates institutionalization. This is reflected in the variables of documentation of the project plan, participation of an advisory group and the passage of a state comprehensive plan for dissemination, which were found to be positively associated with institutionalization. These variables signify that planning had preceded actions toward implementation and eventual institutionalization of the system.

Fifth, institutionalization was associated with the increased contribution of state funds for the resource base, and federal and state funds for the linker component. These associations offer a measure of concurrent validity of our institutionalization scale, where a major part of institutionalization is the gradual increase of state funding. It is interesting to note, moreover, that state and federal funds seem to flow from support of the resource base to support of the linker subsystem. Once established, state monies are capable of supporting resource base operations; establishment and operation of the linker subsystem however appears to require more funds and more time to implement in most states, thus demanding continued federal support.

When the states from all five cohorts were combined, the results indicated that years in the Program and project characteristics (the major variable again was target communications) had the strongest association with institutionalization. As with several of the other scales, while the cohorts that had been in the program for some time were at roughly the same level of institutionalization, they were substantially higher than the cohorts just entering the program.

The results of the regression analyses when project and non-project states were combined indicated that membership in the Program accounted for 20% of the total variance, and project characteristics for 16%, in which the major variable was targeted communications (.43).

Explaining Variations in Dissemination Capacity: A Summary

In the first portion of this chapter we described dissemination capacity in terms of the constituant activities of each of the six scales (i.e., comprehensive resource base, coordinated resource base, comprehensive media linkage, comprehensive program linkage, coordinated linkage, institutionalization). In this second portion, we examined variations in dissemination capacity by studying relationships among variable domains, across dissemination scales, and across dissemination components.

In this latter section our analytic strategy was guided inpart by the selection of variables which we found to be of some significance through our site visits. For example, we thought that prior experience in dissemination activities or dissemination capacity that had been developed would differentiate between the states interms of their capacity building projects. We had found, also, that state untextual factors (e.g., SEA influence for school change) appeared to be significant elements. These factors together with project characteristics and project duration comprised the variable domains which were utilized to explain the variations between states.

Generally, the variable domains prior capacity and project director (or years in the program) were the weaker sets of explantatory variables for Cohorts I, II and III. We explained this phenomenon as probably resulting from the limited time of measurement and the possible diffusion of information about capacity building experiences from the older to the newer projects, resulting in a "washing out" of the effects of the time we were able to measure the states. When analyses were conducted between the capacities of SCBP states and non-SCBP states substantial differences were found, indicating that the membership in the program does assist states to develop capacity.

The variables contained in the domains of state characteristics and project characteristics provided relatively greater explanatory power. In these domains factors such as SEA influence in the school improvement process, school centralization, strategies for targeting services and placement of the project in the SEA organization were found to be of primary importance in relationship to other variables in these domains. We stress again the tentative nature of these relationships because of the methodological problems which were discussed earlier. However, these variables may be indicative of important relationship between capacity building and state and project factors. More significantly, these variables may represent a series of activities which help us to understand how capacity is built. For example, targeting services to a particular group(s) probably enhances the projects image among those in the SEA since in this manner the project builds a base of supporters and shows that it can provide a needed service to educators.

Although these analyses must be regarded with caution, we feel confident that the analysis has provided further support for the conclusion gained from site visits; membership in the SCBP has increased the capacity of the SEA for dissemination activity.

FOOTNOTES

5.1 Since Cohort V states were newly funded at the time of our data collection we consider these states to be similar in development to the non-SCBP states. That is, the effects which might be expected because of enrollment in the SCBP have not yet had a chance to become evident, although one might consider that these states may have had some "anticipatory generalization" with their role as dissemination building states.

5.2 See Volume IV in this series, Special Study of the Development of Scales Measuring Dissemination Capacity (NTS Research Corporation, December 1980), for a technical discussion of how these scales were developed.

5.3 NIE Program Announcement, State Dissemination Grants Program, FY1978, p. 11.

5.4 Ibid, p. 11

5.5 Op.cit., p. 11

5.6 Op.cit., p. 12

5.7 Volume IV in this series presents a longitudinal analysis which attempts to assess the development of capacity. This analysis lends credence to our interpretation.

5.8 Analyses of differences between the states in Cohorts I, II and III versus the other cohorts did not reveal significant differences. One source of uncontrolled variation, however, is the self selection of the states into the program which may reflect a dimension relevant to dissemination activity or capacity.

6

NIE AND THE PROGRAM

Introduction

This chapter examines the relationships between NIE and the capacity building projects and also examines the impacts of the Program design on the capacity building projects. The chapter looks first at the Federal context within which the Program is set and follows with a more detailed examination of the role of project monitors in Program management. Finally, the grant award process is examined in order to more fully understand the program's design and operations.

Federal Context

The legislation establishing the National Institute of Education includes four objectives which are of particular relevance to the State Dissemination Grants Program. These objectives are to:

- Solve or alleviate the problems of, and promote the reform and renewal of, American education;
- advance the practice of education as an art, science, and profession;
- strengthen the scientific and technological foundations of education; and
- build an effective education research and development system.[6.1]

The State Dissemination Grants Program was designed to address these four objectives. Current and former program officers suggest that several factors played general or specific roles in the design and implementation of this particular program. General factors included:

- Recognition of the constitutional responsibility of the states for education.
- A perceived need for state support for continued NIE authorizations by Congress.

- Experiences of some of the early participants in OE's Pilot State Dissemination Program and the impression that similar efforts were supported by NIE's enabling legislation.
- A sense that the gap between knowledge producers and knowledge users needed to be bridged.

Specific reasons given to explain the shape, rather than the general concept, of the SDGP include:

- Recommendations by a "working group" of NIE and state personnel led to the two-pronged strategy of awarding special purpose and capacity building grants.
- Most of those at NIE involved in planning the SDGP had SEA experience; this led, in part, to the focus on leadership.
- ERIC experience was common to many of the participants; this has had an effect on the information systems focus of the program.
- Theories of organizational growth and development held by NIE staff emerged as the "collaborative, non-prescriptive" program management stance assumed by NIE.

The State Dissemination Grants Program was initiated in FY 75 with the mission to improve educational practice by encouraging state education agencies to help educators locate and use current knowledge about educational research, new products, and improved practices. Following initial implementation, NIE has sustained its financial support of participating projects, its non-prescriptive management stance, and its programmatic emphasis on the leadership/management, resources, and linkage components despite reorganizations and a nearly complete turnover of program officers and project monitors.

According to program officers, the purpose of the Program is to strengthen one set of systems within the "nationwide dissemination configuration" by focusing on SEAs. Other settings within which such systems were to be developed included regional, community, local school and professional groups. The overall goal of these capacity building efforts is to improve educators' access to information by strengthening SEAs through deliberate improvements in leadership, linkages, and resource bases. The final result should be improved decision-making by educators.

In discussing the "nationwide dissemination configuration," it was pointed out by one of the program officers that "nationwide" should not be interpreted to mean "national" or "Federal." A typical comment of program officers was that a configuration implies a "loosely-coupled," interconnected series or "system" of systems. The individual goals, objectives, and interests of each of the participants in this configuration guide their behaviors; they are not guided by the Federal government. The Federal role in the development of a dissemination configuration is limited to coordinating existing activities to the extent possible, and to stimulating increased capacities of the systems involved by non-directive support and leadership. Project directors' views on "dissemination configurations" are more limited. A configuration would be keyed to the SEAs which, in turn, would be supported in their dissemination efforts by the regional exchanges. These views are echoed somewhat by NIE project monitors. States are seen as the basic element from a legal (constitutional) and political viewpoint, and have become of significant importance as they adopt a more "service-oriented" stance toward practitioners. Project directors frequently commented that the lack of coordination of dissemination efforts at the SEA level is a function of fragmented Federal mandates and dissemination funding.

Program Management

The SDGP was originally a program within the Dissemination and Resources Group (DRG) within NIE. DRG also had included ERIC and other information programs. In the reorganization of 1978, the SDGP was placed within

Regional Programs unit under the Program for Dissemination and Improvement of Practice (DIP). Regional Programs includes R&D Exchange, Regional Services, R&D Utilization, State Dissemination Leadership Project and other regionally-focused dissemination programs, as well as the SDGP. Information programs (e.g., ERIC) also were placed in DIP but under the Information Resources Program. This reorganization had two important effects on the SDGP: (1) the influence of ERIC would decline, thus lessening the "information systems bias" of the Program and (2) the R&D Exchange and SDGP would be able to work together more closely.

The Program has never had a full-time monitoring staff. Monitors had to be "borrowed" for part time service from other programs (usually ERIC) and, consequently, had only general knowledge of the Program. Insufficient time was available to the monitors to obtain in-depth knowledge of their own projects, much less those other projects which constitute the program as a whole. Monitors' spend from about 10% to about 25% of their time on activities related to the SCBP. Until recently, monitor training was informal and took place primarily through sharing at staff meetings. Even that level of training was impeded, according to the project officers and the monitors, by the dispersed organizational placements of the monitors. However, training has been given recent attention: new and continuing monitors have received a multi-part orientation which ranged from a conceptual framework for the program to presentations by two of the capacity building projects.

Nearly all the monitors have had other monitoring experience, usually with ERIC clearinghouses, some having experience for as long as eight years. With the reorganization of NIE, most monitors were newly assigned and located primarily within Regional Programs. Monitoring assignments generally follow a regional pattern and overlap individual's monitoring responsibilities in other regional programs. Monitors report they were assigned to projects on the basis of their familiarity with individual states from previous ERIC or regional experiences. More recently, the norm has been to assign monitors on a regional basis related to their other responsibilities (e.g., ERIC, RDX, RDUP). The rationale for this assignment method is to promote regional knowledge among monitors, and, by planning multi-purpose site visits, to permit visits to occur more frequently. The reported purposes of site visits include: promoting mutual familiarity among the people involved, learning about projects, discovering problems about objectives and timelines, providing assistance if possible, learning about unexpected results, and helping resolve within-SEA or SEA-NIE problems. (Monitors report they are supposed to visit their projects yearly, but many states are skipped because of limited travel funds.) Therefore, quarterly reports from the projects are identified by the monitors as their primary monitoring tool, though only "limited" amounts of time are devoted to them.

Monitors tended to see their role essentially restricted to monitoring receipt of deliverables and helping their projects adhere to their proposals and to the "letter and spirit of the grants announcement." Other functions include assisting project directors in solving problems related to administration and finance at NIE (e.g., obtaining no-cost extensions or carrying line-item budget changes through the bureaucracy), providing a sounding board for project directors' ideas or a shoulder for project directors' own problems, and reading reports and providing "constructive comments" when appropriate. One potential function, that of providing technical assistance, is downplayed. The monitors suggest they do pass on ideas from their other projects when relevant, or refer project directors to others who might be able to help. However, they lack the time and knowledge needed to offer much assistance, nor do they see project staff looking to them for detailed technical assistance.

It is interesting to note that the issue of monitor time and the provision of technical assistance to projects has been a major concern throughout the life of the Program. For example, in an NIE internal memorandum dated May 17, 1976, it was noted that:

> At a recent meeting here the project directors of the FY 75 cohorts of projects complained that they received insufficient attention from their monitors.

Project directors in 1978 and 1979 continue to reinforce this view, particularly in their call for increased technical assistance, but NIE has not provided the level of technical assistance requested, nor the level and consistency of monitoring expected by the states.

The Awards Process

We are able to pursue the logic of and the importance of the program design through an examination of the awards process, in particular through an examination of the application of the critera for awards in this process. As with the program guidelines, the criteria for awards have not changed significantly from those first published in the 1975 Program Announcement. We examined NIE memoranda on "Recommended States of New State Dissemination Grants" from FY 75 through FY 79 and analyzed the procedures used and the reasons noted for the strengths and weaknesses of the proposals. This latter analysis provides further indications of the priorities for the development of dissemination capacity and areas of inconsistency in the program design.

The Review Process

NIE has established and utilized a consistent and logical structure and process for the review procedures. Each proposal was reviewed and rated by five individuals. Three external reviewers who were representative of SEA dissemination and experience were joined by two internal NIE reviewers, staff DIP members. Each application was then discussed and a written summary prepared during which strengths and weaknesses were noted and points of negotiation made. NIE reviewers then met to consider the findings and to develop a tentative funding priority. It is important to note that funding priorities were made in the light of the specification of explicit ways the proposals could be improved through the negotiation process. It should be noted, also, that the memoranda stating the recommendations tended to be documents which thoroughly described and analyzed the process and the implications for the decisions.

The Awards Criteria

The criteria which guided the review process are published in the Program Announcement. In order to guide our discussion, the criteria for capacity building grant applications are presented:

> Applications will be evaluated in accordance with the criteria listed below. The relative weight of each major category of evaluation criteria is indicated by the points assigned.
>
> A. Significance of the proposed project (0-50 points), as measured by the following factors:
>
> 1. The likely contribution of the project to the improvement of educational practice or the resolution of significant educational problems in the State;
> 2. The likely progress toward achieving SEA objectives for a comprehensive dissemination capacity;
> 3. The contribution which the proposed project is expected to make toward improving equality of educational opportunity in the State;

4. The aid that the proposed program will give users in rational consideration of alternative approaches to improve educational practice or solve educational problems;

5. The potential contributions of the project to general knowledge or understanding of effective educational dissemination practice.

B. Technical adequacy of the work plan (0-75 points), as measured by the following factors:

1. The extent to which the application relates proposed activities to pertinent dissemination theory and practice;

2. The clarity and explicitness of the statement of project objectives;

3. The logic and rationale for selecting these objectives;

4. The probable attainability of these objectives;

5. The appropriateness of the proposed activities to the objectives of the SEA dissemination project and to the purposes of the State dissemination grants program;

6. The soundness of the management plan and time schedule;

7. The appropriateness of SEA reporting and evaluation procedures.

C. Capability of the SEA to perform the proposed activities (0-50 points), as measured by the following factors:

1. The qualifications of proposed project staff with respect to training and relevant experience;

2. The quality of discussion and analysis in the application;

3. The adequacy of the SEA commitment and arrangements for the project in terms of plans for:

   a. the use of State funds in combination with Federal funds;

   b. the continuation of proposed dissemination activities after the expiration of Federal funds;

D. Reasonableness of the budget for the work to be done in light of anticipated benefits (0-25 points).[6.2]

Our analysis stressed three aspects of the awards criteria: do the criteria reflect the key issues as promulgated in the guidelines; what are the concerns which are reflected in the review process; and, finally, do the criteria and the review process encourage the development of those features necessary for a dissemination system?

The Criteria and Key Issues

In the Program announcement, NIE specifies that the SEA should respond to key issues which were stressed in the guidelines. These issues are:

- Location of the proposed project within the SEA;
- A plan covering a 3-5 year period;
- Provision for the 3 elements constituting comprehensive and generalized dissemination capacity;
- Provision for coordination of disparate dissemination activities across the agency;
- Provision for offering some dissemination service to clients some time during the first year of the project;
- Provision for increasing amounts of SEA financial commitment;
- Provision for improving the access of all educators, including minorities, women, and the disadvantaged, to information resources.[6.3]

It is interesting to note that the key issues of comprehensiveness and coordination of the resource base and of the linkage elements (two of the three elements consitituting comprehensive dissemination capacity) are not explicitly expressed in the criteria. While such concerns may be understood by the reviewers or expressed implicitly in the criteria, there is no guidance for the reviewer with regard to these factors. Indeed many of the criteria stress the awareness of dissemination theory and practice and the contribution to general knowledge or understanding of dissemination practice. However, the criteria do not contain weighting factors for two crucial elements of the Program. This can only foster a continuation of the ambiguity and lack of development of critical programmatic features, particularly linkage elements and equal educational opportunity, as we will discuss.

Concerns Reflected in the Review Process

One of the key comments made by program officials noted that NIE had made a "mistake" by not attempting some tighter controls or direction over the projects. This was not said to negate the basic philosophy of a Federal-State partnership, but in recognition of the disassociation which often existed between the goals of the program (often implicit) and the directions the states were taking. This general view is further heightened by another obervation, namely that NIE often felt powerless to deny funding to states which did not show as much progress as desired. In our review of the awards process, we found a number of NIE reviewer comments stating that a project was not "on target" or lacked sufficient indications of real progress. Some of these reviewers urged that funding to such states should be halted or at least held up until a better implementation plan was devised and better programs designed. As far as we could tell from the review of the awards, no state, once it was awarded an initial grant, was ever denied a renewal grant. This does not mean, it must be noted, that NIE did not attempt to exert influence and direction in some cases. However, as Raizen has pointed out, the Capacity Building Program while competitive in its awards procedure for each year, was viewed as a program which would eventually reach all of the states. Thus each state who so desired would be awarded a grant; it was viewed as a "queuing" process. Since the grants were to be for multiple years, continuation of the grant was also viewed as more or less automatic.

An examination of the reviewers comments on strengths and weaknesses in proposals and of the recommendations for negotiations with the states provides us with information on the problems which are characteristic in the proposed development of dissemination capacity. By extension, these factors could indicate where the greatest need is for technical assistance to the projects.

There were a large number of factors noted as weaknesses in proposals and therefore as targets of negotiation, but a few were seen as recurrent problem areas. Chief among these were:

- Provisions for funding of the project after NIE funds ceased.
- Lack of a general plan for dissemination in the state.
- Training plans for linkage agents and SEA personnel.
- Plans for the Linkage Agents
- Staff
- Evaluation and follow-up procedures.
- Development of a permanent dissemination capacity.
- Provisions for enhancing equity.

In the suggestions for negotiations expressed in the reviews, many of these deficiencies are dealt with through suggested courses of action. Consistently, however, little direction for action is offered for the linkage element and training for linkage elements; and there is little specification for the development of a general plan for dissemination or a specific plan for enhancing equity. This aspect of the application of the awards criteria provides one indication of problems that the Program has in the development of key features of a dissemination system. We turn now to the consideration of two of the major deficiencies of design in the attainment of program goals: Equal Educational Opportunity (equity) and linkage agents.

Equal Educational Opportunity. From the first publication of the program guidelines to the present, the call for the use of dissemination to help achieve equal educational opportunity has been consistent, although hardly precise in its call for implementation. For example, the following excerpts from the program announcement have been found in each year of the Program:

> NIE has come to realize that it will completely fulfill its dissemination mandate only when all participants in the education enterprise (including women, racial minorities and the disadvantaged) have full access to an use a full range of educational resources, including the outcomes of educational research and dissemination.[6.4]

Also:

> ...the proposed State dissemination system should serve the national goal of enhancing the equality of educational opportunity, particularly among women, racial minorities, and the culturally and economically disadvantaged in urban and rural areas.[6.5]

The call for equity is clear; the suggested means to achieve the goal are obscure. In fact, equity concerns are not explicitly addressed by most projects and NIE, by their own admission, has not faced the situation in all of its complexity and arrived at a operational plan. This does not deny NIE's growing concern with this area, but this increased concern has been stressed so late in the life of the Program it has not achieved noticeable results.

Linkage Agents and the SEA. The weakest link in the dissemination program announcement from NIE is in the area of linkages. It is the weakest part because of its ambiguity, and because it fails to take into account the significance of the SEA as it is structured to meet the mission of school improvement. In order to clarify these statements we must present the

Program announcement discussion of linkages, with our correponding analyses:

> Linkage activities are those services with facilitate user access, acceptance, and successful utilization of knowledge resoruces. Printed materials, media, and electronic devices can contribute to the performance of the linkage function, but interpersonal communication is essential in providing client services.
>
> A growing body of research in education and in other fields shows that direct, person-to-person intervention in providing information is both the preferred and the most effective way to help others utilize new knowledge and practices.[6.6]

As suggested in Chapter IV, the Program Announcement seems to contain at least two definitions of linkage, and these definitions are continually mixed in the Announcement's extended discussion of linkages. The first distinction is seen in the first paragraph, when the distinction between printed materials and interpersonal communication is made in terms of "contribution to the performance of the linkage function versus "providing client services." In the second paragraph the need for interpersonal communication is to "help others utilize new knowledge and practices" [emphasis added]. Therefore, the basic distinction which we suggest is being made in the announcement is between an awareness, information function served by printed materials (which is non-interactional) and the assistance in using information (which is interactional.) The problem is futher compounded where examples of kinds of linkages are described:

> Among linkage roles in educational settings are:
>
> - Subject specialists or resource persons serving as full-time staff members of State educational agencies, intermediate units, or large city school districts;
> - Field agents located in educational laboratories and in State projects supported by Title IV; of Public Law 93-380;
> - School study council participants who review, select and introduce new programs in the schools of council members.[6.7]

These examples compound the confusion because they do not describe linkage roles; rather they describe the positions which linkage agents may *hold* but not what the linkage agents may *do* in their roles as linkage agents, nor how they may fit into the SEA dissemination system.

Linkage agents are depicted in the role of utilization agents. But there is little guidance as to how these agents will fit into the SEA approach to school improvement, as well as into the enhancement of equal educational opportunity. Indeed, there is no discussion of, and no recognition of, the SEA school improvement effort. We recognize that the NIE strategy in this Program was to allow the states to decide how and in what ways the dissemination system should be developed and utilized in their particular situation. However, the lack of clarity in the description of linkage agents leads to the possible creation of a separate, and new, state agency (or unit) whose primary purpose is to enhance change in school programs. An alternative to this approach is to have the linkage agents who are a part of the SEA, such as subject specialists in intermediate units. This, of course, requires that such linkage agents incorporate the functions of the dissemination system and its philosophy into the existing structure and job category. One question which must be answered is the amount of training required for linkage agents to properly perform their tasks as linkage agents. If, for instance, subject specialists in the intermediate agencies are designated as linkage agents, are all subject specialists to become linkage agents? If so, how will training and coordination with the resource base be achieved?

The significant point of our analysis of the program announcement, and of the insights gained from our investigation of the experience of the capacity building states is as follows:

> There exists a gap of definition and practice which is of such serious concern that it may undermine the effectiveness of the building of dissemination capacity and the implementation of that capacity to enhance school improvement.
>
> There is no discussion or guidance in the Program announcement which deals with this issue. Further, and perhaps most seriously, there is little in dissemination theory or conceptualization which provides guidelines to the resolution of this problem.

NIE has supported efforts to discover those factors which enhance the linker role and which enhance the use of information to improve school programs. Such efforts may reveal that particular methods of linker behaviors are more effective in assisting clients and that linkers who are based closer to the client in the educational hierarchy are more effective. However, these efforts are for the most part not placed within the context of the larger SEA structure and operations. In other words, as we have pointed out earlier, will the linkage agents be separate from other SEA change efforts, integrated into the SEA effort, or adopted as the official policy and procedure of the SEA? The realities of bureaucratic entrenchment and of the economics of the SEA must be taken into account in order to provide answers to the overarching question, how do you get the dissemination system including linkers, to be a part of (or a partner with) the ongoing SEA system of school improvement activities. To date it does not appear that NIE has provided any leadership in planning for these contingencies. Therefore it continues to be an undefined area, and an area which provides the greatest inhibition to the utilization of the dissemination system as a source of school improvement assistance.

Summary

This chapter reviewed NIE's management of the Program, particularly the role of project monitors, and examined the grant award process in order to understand the Program's design and operations. We found that NIE has devoted less than optimal levels of internal staff to the management and monitoring of the Program. NIE staff frequently were unable to provide adequate coverage on accountability - type monitoring to determine if project goals and schedules were met. More importantly, NIE was not able to provide sufficient post-award technical assistance which may have been requested (and in some cases, much needed) by the projects. The Program design, itself, has contributed to project's need for technical assistance. Ambiguity is greatest in operationalizing the linkage component and in strategies for enhancing equity. In both areas, a gap exists between definition and practice. The program announcement's call for enhancing equity is clear; the suggested means to achieve the goal are obscure. The ambiguity in linker area undermines the effectiveness of the building of dissemination capacity and the utilization of that capacity as a source of school improvement assistance.

FOOTNOTES

6.1 Public Law 92-318: Education Amendments of 1972, Title III, Section 405 of the General Education Provisions Act (20 USC 1221e).

6.2 NIE Program Announcement: State Dissemination Grants Program, FY1978, pp. 20-21.

6.3 *Op.cit*. p. 15.

6.4 *Op.cit*. p. 10.

6.5 *Op.cit*. p. 11.

6.6 *Op.cit*. p. 12.

6.7 *Op.cit*. p. 12.

7

SUMMARY OF FINDINGS AND RECOMMENDATIONS

In the last three chapters, we have described and analyzed the activities associated with the development of dissemination capacity. In Chapter 4, we took an intensive look at five states and described how these states have developed the capacity for dissemination activities. In Chapter 5, we described the development of capacity in twenty-five states and searched for explanations which would help us to understand the variations which exist between those states in the development of that capacity. In Chapter 6, we examined the role of NIE in this process. In this chapter, we summarize these data and present suggestions to policy makers and practitioners about the development of dissemination capacity. We will discuss and extend those themes initially suggested in the investigation of five states and further examined in the analyses of the experiences of the first three cohorts of states receiving SCBP grants. Through our synthesis, we examine two major questions:

- What are some relevant concerns about the structure and operation of dissemination systems?
- What should policy makers and program operators be aware of when building dissemination capacity?

Finally, we present a summary of our findings and recommendations.

In previous chapters, we described the components which the Program guidelines suggested were essential to the building of a dissemination configuration; a resource base, linkages (that is, a means to get the information to the client for use), and leadership, through which coordination of the dissemination project with other SEA resources is achieved. We will continue to use these components to organize our discussion.

The Resource Base

The resource base is the most developed component of the SCBP state systems. In its most elemental form the resource base is an information service (i.e., a library) which responds to requests for information by either using its own resources or by letting the client know where helpful information can be found. Taken as a separate entity, its service function is recognizable and acknowledged. When, however, we place it within a framework of change, of which it is an essential element, its function becomes less clear. In other words, this study has described resource bases which can provide a wide and comprehensive collection of information to clients; but since the study has also described the lack of recognizable systems which provide for the use of that information to improve school practices and enhance educational equity, we cannot yet assess the efficacy of the resource base.

There are, however, operational questions which are of significance to the development of the resource base capacity. These such questions are ease of access and timeliness. The two major forms of accessing the information base are directly from client to the resource base or to the resource base through a linker. These are not mutually exclusive since some states allow a combination of the two forms.

In those states where the linker is the conduit for requests we assume that the involvement of the linker is to provide sustained assistance to the client. This assistance would extend from problem definition to the interpretation of information and eventual assistance in the implementation of the change strategy. When the client can request assistance directly from personnel at the resource base, those staff members can provide assistance in problem definition, but not necessarily in the full range of activities as can the linkers. But there are various trade-offs. Direct access to the resource base may result in faster turn-around time for a request, but be more disruptive to the developmental activities of the resource staff Access through a linker might provide greater assistance for the client and promote more school improvement, but be more time consuming, resulting in a loss of relevant information or client interest.

The associated problem of the timeliness of information response, in general, also should be considered. Currently turn-around time for a request varies among the states, ranging from a few days to a few weeks. Good responsiveness is as important to the project as it is to the client; external perceptions of the worth and usefulness of the resource bse may well help to determine its survival potential.

Linkers and the Dissemination System

As with the development of other components of a dissemination configuration, the human mechanisms (i.e., linkers) for getting the information to clients were developed by building upon existing structures and frameworks within the SEA. There are many ways to characterize the linker system developed by the states. We have found that many individuals in the school, LEA, IEA and SEA levels have been designated as linkers, although they can be differentiated by function as well as level. That is, most linkers whose primary function is to inform clients about the information services are at the local level; most linkers who function as assistors in the implementation process are employed at the SEA or intermediate unit level. We have suggested that linker configurations can be described in terms of the degree to which the linkers are incorporated into the existing SEA structure for school improvement (the idea of integration), as well as the extent to which linkers are "coupled" with resource base activities. Finally, we have described the relationship of the project, primarily through the linker activities, to the existing SEA school improvement process in terms of whether the project complemented or compensated for SEA improvement efforts. Each of these characterizations allows us to look at the linker as a part of the dissemination network and as a part of the SEA system; this helps us to consider some potential problem areas.

For example, no more than one or two states have developed the linker system de novo; that is, by instituting a new structure with new personnel. Rather, existing structures and existing personnel have either been labeled as part of the linker system or adapted to take on linker functions. Sometimes this results in confusion about understanding what linkers do, i.e., local linkers seldom are engaged in activities other than letting clients know of the services available, while SEA and intermediate unit linkers may act more directly with clients to assist in change.

Linkers, both within states and across states, therefore, serve many purposes in the dissemination configuration. But, if we do not consider those linkers who serve only the awareness function, we can focus upon the relationship between linker functions and the school improvement activities of the states. In some states, linkers are the major information conduit from the resource base to the client; in other states, they act as information conduits as well as assisting the client to use the information in the improvement process. These differences in linker functions have led us to question the relevancy of the dissemination configuration to the school improvement process since in some states there is a conscious separation of the resource base from the improvement process, or a separation of linkers from the implementation process. If we take the goal for dissemination systems, as expressed by NIE, as assisting the clients to use information for the improvement of school practices, then the weakest link in the chain of processes designed to achieve this end is the "linker" as that concept is operationalized and implemented in many states.

Also, when an individual is labeled as a linker, it does not ensure that this individual will be able, or will know how, to behave as a linker. There are expectations for this role which require, in part, knowledge of how to use information with and for clients, as well as expectations for how to implement the change process. In some states, linkers may not have the benefit of training to fulfill their roles, particularly if they assume their role because of a status label.

In other situations, linkers are not involved (by design of the respective states) in the process of implementation of educational changes. In such cases, one must question how the dissemination system is fulfilling the expressed objective of the SCBP. This is not to state that educational change is not taking place; rather it is to point out that the connection between the dissemination system and change at the client level is not readily apparent.

If NIE wishes to ensure that information is used in school improvement processes and wishes to employ change agents in that process, then a well delineated approach to linker related roles should be developed. Mechanisms or structures should be explicitly worked out so that there is (1) a means of making the client base aware of the available services, (2) a means of getting relevant and required information to the client, and (3) a means to assist in the implementation of a variety of school improvement practices. One individual could be assigned all of these behaviors; or separate individuals could be assigned one or a combination of these behaviors. What structure is developed is a matter of experience and practice as well as the philosophy and needs of the individual SEA. Indeed, an SEA may decide not to have persons engaged in any one or more of the above behaviors. The important purpose is to make specific how information would get to the client and how the system (the SEA) will assist the client to use the information in the improvement of educational practices. The states and NIE will then be able to assess whether the particular approach makes sense and helps to accomplish the goals set forth for the role of dissemination in school improvement.

Coordination/Leadership

We have described coordination between the SCB project and other SEA program units in terms of those working relationships or agreements which assist the client through providing access to their resources. It is important to recognize that across capacity building projects coordination has meant a variety of configurations ranging from formal relationships where the SCB project provides direct service through and for other program units, to agreements with other programs units to cooperate in providing information to clients. Coordination with units in the SEA has a definable pattern. Coordination is established with other dissemination-oriented programs more easily than with subject specific programs, even though these latter programs may have dissemination components. One possible reason for this cooperation is that administrators and personnel in dissemination based programs have a better understanding and appreciation for the goals and activities of each others' programs. Sometimes SEA administrators and program personnel have little regard for dissemination system activities, or lack confidence in the information being disseminated. As a result, they are less willing to be supportive of the efforts of the dissemination project.

When considering the topic of coordination, we must consider also the leadership of the project. Both the site visits and the quantitative analysis of project factors have indicated the importance of leadership and its continuity. Coordination, we found, usually occurs as the result of the actions of project leadership and less as a result of support or direction from the SEA bureaucracy.

We have found that the general state of coordination (cooperation) between other program units in the SEA and the SCB project unit does not reflect a high stage of development. It is likely that without the leadership or example of federal or state government, greater coordination may not occur until the dissemination system is proven to be of worth in the answers of educational improvement or service in the states.

Key Factors in Building Dissemination Capacity

From these analyses we now turn to a synthesis and interpretation of this information in order to suggest those activities or strategies which appear to characterize and enhance the development of dissemination capacity in SEAs.

States begin at different levels of experience and preparedness in dissemination activities, and this variation in prior experience makes a difference in how SEAs develop their dissemination systems. Although we did not find that prior experience provided strong explanatory power, we interpreted this as being the result of the SCB experience in the SEAs.

Prior experience appears to be most helpful in establishing the coordination aspects of the system. This is probably due to the positive exposure of other parts of the SEA to dissemination-like activities, as well as the experience that dissemination personnel have had as a result of that prior experience. But coordination is assisted also by other factors. If a state is small(er) in terms of its educational system, and if a state is more centralized, coordination is more likely to be enhanced. However, cutting across all of these factors is the placement of the project in an administrative unit within the SEA structure. It would appear that such placement provides the project and its leadership with a mechanism, or perhaps "clout," to make the necessary contacts with other program units and to forge those linkages so important in establishing cooperative relationships within and outside of the SEA. This coordination with other SEA units develops a greater comprehensiveness of the dissemination system, such as the resource base since one of the results of coordination may be to have access to the resources of the other agencies or units.

As in most efforts to bring about change, leadership is important. The involvement and stability of project leadership has a significant effect upon the building of capacity. The site visits indicated the importance of the entrepreneurial leader in the development and implementation of the dissemination system. The placement of the project in a high administrative position may invest the project leader with certain powers, but the individual must be able to utilize the office to achieve the goals of the project. Therefore the success of the capacity building effort will depend to some extent upon the abilities of the project leader to creatively motivate others in the SEA to recognize the significance of the dissemination system for achieving educational improvement.

What actions appear to be significant when the dissemination system itself begins to operate? That is, what strategies appear to be the "best" for the dissemination project to take in order to enhance the building of capacity? Two general approaches seemed to be establishing clout and establishing a track record. To achieve these ends the evidence indicates that instead of initially trying to serve a wide base of educators, the project should target its activities to particular groups of clients. There are two general ways to accomplish this. One approach is to target activities toward either serving a particular agency (e.g., Special Education), a special group (e.g., SEA administrators), or a special population (e.g., teacher of English). One of the results would be to show this group (and others) that the project can meet real needs and provide real services. Thus, when the project expands to other groups it will have good credentials of service and will have an established constituency to whom it can turn for support. Of course, one strategy which is not made clear in this study, although we suspect that it is the case, is whether the targeting approach is most successful when that target group is a power block in the SEA. If you can prove your worth to such a power block, the base of legitimacy for continued support from the SEA has been developed.

Another approach is to utilize targeted communications. By this we mean to develop information packages or products or particular issues ("hot topics") such as new developments in how to teach mathematics, or what teachers should know about laws dealing with education for the handicapped. Through this approach, the project can sell its services to a particular group and illustrate its potential use to the educators in the state. The evidence suggests that, at least in the initial phase of development, attempting to serve a diverse clientele dilutes the efforts of the project and disperses the potential core of client support.

There is a sudden, and interesting, shift in the key elements supportive of capacity building. This shift may signal that there are, at least, two phases in the development of the dissemination system and its acceptance as a part of the SEA. The first phase is equivalent to getting the system going; the second phase may be the period of keeping it going. The evidence shows in three key areas: placement of the project; client strategies; and scope of effort. All three relate to a key strategic element: delivering services.

Keeping the system going, or achieving more institutionalization, is achieved under conditions which are different from those found in the early stage of development. Institutionalization is enhanced where the project is located within a service unit of the SEA. Whereas coordination and comprehensiveness of the dissemination system are enhanced by project placement in an administrative position, the project survives best when it can deliver services to the educational community. The ability to deliver service is obviously enhanced when ties are established with those units which are providing services. The service theme is reflected also in the finding that serving a more general clientele is associated with a greater degree of institutionalization the project must show that it can be of importance to the general educational community and not just a segment of that community. Finally, in order to keep the system going, some retrenchment of the scope of operations appears to be necessary. In other words, decide what you can do best, ration the resources and consolidate your efforts before attempting to move further; the project must prove itself again.

These scenarios are not meant to be program designs but they can serve as suggestions for program designers. The evidence does not suggest that dissemination capacity can be built only if a project is placed initially in a service unit, nor that a system will not become institutionalized only if a project is placed in an administrative unit. The evidence does not suggest that a project should be placed in an administrative unit and then shifted to a service unit. The evidence does provide clues to the program designer and program operator of some of the key factors which should be taken into account in the development of capacity for a dissemination system.

Summary of Findings

The study findings are presented as responses to three major research questions:

- Is dissemination capacity being built?
- What are the factors affecting the building of capacity? What helps and hinders achievement of program objectives?
- What program management and program design factors affect the building of capacity?

Is Capacity Being Built?

1. The primary effect sought from the program--increased capacity of SEA's for dissemination--is being achieved.

   - States have substantially increased the breadth and variety of knowledge resource bases that can be accessed through the SEA dissemination unit.
   - States have modified existing structural arrangements to develop the capacity for the delivery of information to clients through "linkers" who function as information brokers.
   - Coordination of the resources for dissemination in SEAs has been improved; however, most of this improvement has occurred between the projects and generic programs such as NDN and Title IV; less coordination has been achieved between the project and content specific programs, such as vocational education and handicapped education.
   - Most states in the SCBP evidence movement toward institutionalizing their dissemination capacity, although it is still too soon in that process to determine if the dissemination system will indeed become an accepted part of SEA program services offerings.

2. The process of increasing capacity follows several different patterns depending on state history and context, and reflects the flexibility allowed by the program guidelines.

   - Resource base development has expanded primarily in the areas of promising practices and other state and local information files. It appears that in most states reliance is placed upon validated programs in the school improvement process; less emphasis is placed upon information gained from non-validated, promising practices as a basis for school improvement.
   - Three linkage patterns--which we have characterized as SEA controlled (tightly coupled), SEA coordinated (loosely coupled), and external (uncoupled)--appear to reflect state philosophy and consequent structures for school improvement.
   - Building SEA dissemination system capacity seems to have an identifiable sequence of development, but individual state factors, and changes in those factors, may override this "developmental" pattern.

Factors Affecting Program Success

1. Success of SEA efforts to implement and institutionalize dissemination systems appear to be influenced by the following:

State Factors

- Continuity of energetic and entrepreneurial leadership; but once that leadership is gone the process may become endangered.
- Previous experience with dissemination activities is a helpful but not sufficient factor in institutionalization.
- Placement in an administrative unit appears to assist in the development of coordination and comprehensiveness of the system. Placement in a service unit appears to assist in the delivery of services to clients and the institutionalization of the system in the SEA.
- Initial strategies of targeting clients for service and developing products for use by particular clientele enhance the development of coordination and comprehensiveness of the system. But the project needs to move on to serve the general clientele if instituionalization is to be enhanced.
- The active support of SEA administrators (Chief State School Officer and their associates) is crucial to building capacity and implementing and institutionalizing the dissemination system.
- Stringent state government budgets and inevitable changes in agency leadership affect the dissemination projects in unanticipated, generally negative ways which are largely beyond the control of project staff.

Program Design and Management Factors

- Collaborative planning and flexibility of program guidelines permitted states to tailor their dissemination projects to fit their individual contexts. While these approaches have enhanced the in-state capacity for independent solutions to dissemination system development, they may also foster areas of non-clarity of purpose between NIE and the states.
- Opportunities to communicate with personnel from other states and agencies facilitate project development. Although the program provided mechanisms for such communication and for technical assistance, these provisions appear to be too limited. In other words, the plan was appropriate; its implementation was not adequate to meet the needs of the states.

- Program objectives regarding the role of the dissemination system in relation to a state's other school improvement efforts are not adequately specified in program guidelines and project proposals. The result is that the potential for facilitating the use of new knowledge and educational practices for school improvement and equal educational opportunity is only partially seen and realized in many SCBP states.

- Program and project goals for increasing equity and for operationalizing those goals are not well developed. There is little evidence of program resources being directed explicitly and in concerted ways for increasing equity in education.

- NIE staff resources assigned to this Program have been too limited to provide the necessary monitoring and technical assistance needed and often requested by the state projects.

Other Structural Factors

- The continued fragmentation of the dissemination components of Federal programs impedes the building of generalized and comprehensive dissemination systems within the states. Despite the fragmentation, however, many states have made progress in coordinating dissemination efforts at the state level.

Summary of Recommendations

1. Collaboratively Strengthen Program Conceptualization and Design

The findings of this study have broad implications for future programs, but in the near-term NIE and the states should work together to strengthen the programs in the following ways:

- Clearer conceptualization and guidelines for ways states can use dissemination resources to facilitate significant improvements in educational practice and equity--e.g., in connection with other SEA programs or through other external linkages with practitioners.

- Clarify the role of state knowledge resource bases and set priorities or guidelines for types of resources that should be further developed--e.g., those that are most used, most useful, most difficult to obtain through other means, or most relevant to equity issues in education.

- Provision is needed for linker training, particularly to enhance skills of individuals who are already located in positions to facilitate school improvement.

- Guidelines should acknowledge the development of organizational capacities and provide assistance for critical functions at each stage. A "step-wise" or "building block" approach is recommended that is keyed to three stages--planning, implementation and institutionalization.

2. Strengthen Program Management and Leadership

   - NIE staff resources for this program should be strengthened in order to provide more guideance on critical project issues--e.g., utilization of dissemination to enhance equality of educational opportunity, and trade-offs among alternative ways the states are authorized to use the program resources.

   - Ongoing and viable communication mechanisms among the states involved in building dissemination capacity should be created and maintained. These mechanisms could include the regional exchanges who could function as the vehicle through which communication among states within regions is maintained.

3. Improve Federal Level Coordination Mechanisms

   - Mechanisms for improving coordination of (or support for the cooperation of) Federally-funded programs should be created at the Federal level.

4. Examine Further the Secondary or "Downstream" Effects of the Program in Terms of Its Effects on Education

   - This study shows that capacity is being built, and identifies a number of factors that are enhancing and limiting the capacity building effort. The program should be examined further to determine how the capacity is used and what aspects of dissemination capacity are most critical in achieving improvements in equity and practice in education.

This study has examined the primary effects of the use of federal funds designated to assist state education agencies develop dissemination capacity. That capacity is being built but it is important now to give that capacity a chance to fulfill its mission. We should begin to address more systematically, now that the program is established, questions regarding the effectiveness of dissemination approaches and what necessary adaptations must be made to make these approaches more effective. Such inquiries will provide additional understanding of the soundness of generalized dissemination approaches for improving educational practices and for improving equality of educational opportunity.

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REFERENCES

The NTS Research Corporation reports for this study all have the general title Building Capacity for the Improvement of Educational Practice. The complete set of volume is as follows:

Volume I Final Report: Building Capacity for the Improvement of Education, An Evaluation of NIE's State Dissemination Grants Program (April 1981)

Volume II 1979 State Abstracts: State Dissemination Efforts (April 1980)

Volume III A Study of Linker Agent Activities and Roles (April 1981)

Volume IV A Study of the Development of Scales Measuring Dissemination Capacity (April 1981)

Volume V Executive Summary (April 1981)

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